

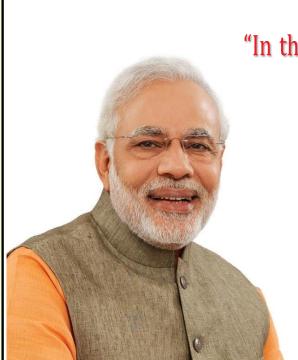


# 2022-23



# **National Power Training Institute**

(An ISO 9001:2015 &14001:2015 Organisation) Ministry of Power, Government of India NPTI Complex, Sector - 33, Faridabad - 121003 India Website: www.npti.gov.in



"In this age of globalization, we have no option but to make a quantum leap in energy production and connectivity."

> Shri Narendra Modi Hon'ble Prime Minister of India

Our Source of Inspiration ...



Shri R. K. Singh Hon'ble Cabinet Minister of Power and New & Renewable Energy

Our Source of Motivation ...



Shri Krishan Pal Hon'ble Minister of State for Power and Heavy Industries

# GOVERNING COUNCIL NATIONAL POWER TRAINING INSTITUTE



**Shri Alok Kumar** Secretary, Ministry of Power Chairman, Governing Council



**Shri B.K. Arya** Chairperson (Additional charge), CEA Vice-Chairman, Governing Council



Shri Ashish Upadhyaya Additional Secretary & Financial Adviser Ministry of Power, Permanent Member



Shri S. K. G Rahate Additional Secretary Ministry of Power, Permanent Member



Shri Jithesh John Economic Adviser, Ministry of Power



Dr. Tripta Thakur Director General, NPTI Member Secretary, Governing Council

\*Beside there are 16 more members from various organisations

### VISION, MISSION, VALUES AND ATTITUDE OF NPTI

Vision	To be the Global Centre of Excellence for Training and Skill Development in Power & Energy Sectors.
Mission	Enhancing human and organizational excellence in Power and Energy sectors by blending frontier clean energy technologies to achieve economy and energy security.
Values	We value our drive and commitment to provide cutting edge technologies and top quality service to our clients, sharing our knowledge and caring for their needs.
Attitude	We constantly strive to motivate every power professional to tap his unique human endowments, consciousness, imagination and willpower. Together we make a difference.



## FOREWORD



National Power Training Institute (NPTI) is an Apex Body for training Power Sector professionals in upcoming areas and is servicing the Nation for the last five decades. It has trained over 3,76,350 Power Professionals in regular programs and is providing dedicated training in the areas of Power and Renewable Energy Sector. The responsibility for training & capacity building of state DISCOMs employees under Revamped Distribution Sector Scheme (RDSS) has been given to NPTI by Ministry of Power, Govt. India. NPTI has geared up to support the implementation of smart distribution infrastructure and optimal & efficient operation of DISCOMs under RDSS. Another important role assigned to NPTI is for conducting training & certification course for different levels of cyber security in power sector areas to all power sector professionals. To keep the participants of various courses abreast with latest technologies, NPTI has been continuously upgrading its infrastructural / training facilities. All out efforts are being made to ensure that various courses being offered by NPTI meet the Power Sector needs in line with CEA guidelines.

NPTI is catering to the need of trained manpower to strengthen the Generation, Transmission & Distribution infrastructure. Also the new emphasis on Renewable Energy addition and in system integration issues are also taken on priority for capacity building thereon. NPTI training Institutes situated at different locations of the country are conducting on site programs in addition to on-line & offline training. The course curriculum & training programs are reviewed based on the suggestion from Advisory Board members, which has been constituted by all institutes and also based on continuous feedback from the participants to meet the expectations of the trainees as well as requirement of Power Sector as a whole. Publications in the areas related to Operation & Maintenance of Thermal, Hydro, Gas Power Plants, Renewable Energy and Transmission & Distribution systems etc. are being provided to the trainees & also offered to the other client organizations.

We are pleased to bring out the Training Calendar for the year 2022-23 with programs on the latest technology. I am sure training being offered by NPTI will help our stakeholders to deliver best to the Nation.

Dr. Tripta Thakur Director General, NPTI

Faridabad February, 2022

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#### ABOUT NPTI

National Power Training Institute (NPTI), an ISO 9001:2015 & ISO 14001:2015 organization under Ministry of Power, Govt. of India is a National Apex body for Training and Human Resources Development in Power Sector and the world's leading integrated Power Training Institute, with its Corporate Office at Faridabad. NPTI operates on a Pan- India basis through its Eleven (11) institutes. Apart from highly skilled and competent trainers and state-of-art laboratories, NPTI has Hi-tech real time simulators of various power plant capacities, which includes thermal (Supercritical, Subcritical), multifunctional, CCGT, Hydro, SCADA & Smart Grid Operations and Despatcher Training Simulator at its various institutes. Having trained more than 3,76,350 Power Professionals in training programs over the last 5 decades, NPTI is the only Institute of its kind in the world with such a wide geographical spread and covering a wide gamut of training programs in Renewable Energy & Power Sector.

NPTI operates on an all India basis with man-power strength of 194 including 85 officers through its 11 Institutes as perdetail below:

#### **Northern Region**

- 1. NPTI Corporate Office, Faridabad
- 2. NPTI (Northern Region) Badarpur, New Delhi
- 3. NPTI (Hydro Power Training Centre), Nangal

#### **Southern Region**

- 4. NPTI (Power System Training Institute), Bengaluru
- 5. NPTI (Hot Line Training Centre), Bengaluru
- 6. NPTI (Southern Region), Neyveli
- 7. NPTI, Alappuzha

#### Eastern & North Eastern Region

- 8. NPTI (Eastern Region), Durgapur
- 9. NPTI (North Eastern Region), Guwahati

#### **Western Region**

- 10. NPTI (Western Region), Nagpur
- 11. NPTI, Shivpuri

#### MAIN OBJECTIVES OF NPTI

To function as a National Organization for training in the fields of (a) Operation and Maintenance of Power Plants, and (b) All other aspects of Electrical Energy Systems including transmission, sub-transmission and distribution.
 To act as an Apex Body for initiating and coordinating training programs in the Power Sector of the Country.

3

To establish and run Training Institutes for Engineers, Operators, Technicians and other personnel of the Power Sector.

#### SUBSIDIARY OBJECTIVES

- To identify and assess the training needs of the Power Sector in the Country.
- To coordinate the training activities of the various Utilities and those of other technical Institutions and supplement it with the training programmes of its own training Institutes.
- To establish standard norms regarding qualifications and training for personnel of various levels.
- To serve as a National Certification Authority for the purpose of Certification of competence and/or participation to ensure availability of properly trained personnel to man the Electricity Supply Industry.
- To initiate, conduct and coordinate R&D studies in the field of Operation, Maintenance and Management of Power Generation and Transmission System and to prepare and conduct specialized training programmes.
- To establish, maintain and manage laboratories, workshops, experimental transmission lines, sub-station and other
- To identify and assess the training needs of the Power Sector in the Country.
- To coordinate the training activities of the various Utilities and those of other technical Institutions and supplement it with the training programmes of its own training Institutes.
- To establish standard norms regarding qualifications and training for personnel of various levels.
- To serve as a National Certification Authority for the purpose of Certification of competence and/or participation to ensure availability of properly trained personnel to man the Electricity Supply Industry.
- To initiate, conduct and coordinate R&D studies in the field of Operation, Maintenance and Management of Power.



Dr. Tripta Thakur, Director General, NPTI held a formal meeting with Shri R.K Singh, Hon'ble Power Minister, Govt. of India and briefed about NPTI and its future planning.

### TRAINING AT A GLANCE AT NPTI

NPTI conducts long-term, medium-term & short-term Training Programs for Engineers & Supervisors on various technical and managerial topics pertaining to the Renewable Energy & Power Sector in the areas of Thermal, Hydro, Renewable, Transmission & Distribution, Management, Regulatory Affairs etc. in the all Institutes. The training programs are either NPTI's regular training programs or customized training programs to suit the training needs of the client organizations. These programs are being organized round the year along with Workshops and Seminars on latest developments in the Sector.

To achieve the objective of providing Energy Sector training, the training methodology so adopted creates step by stepenvironment for all round development of skill and knowledge of the participants.

- Class room lectures for imparting formal, theoretical and technical knowledge.
- Case studies/Group discussions.
- Self learning techniques, like computer based self learning training packages and e-learning
- Practical hands-on training in corrective maintenance methods and techniques.
- Simulation techniques and on-job training in Power Stations/Power Systems.

#### **Industry Interfaced Programs and Placement of Students**

NPTI conducts the following industry interfaced programs with the objective to create a pool of committed and competent professionals equipped with appropriate technical skills to steer the Indian Power Sector

- One Year Post Graduate Diploma Course in Power Plant Engineering
- One Year Post Graduate Diploma Course in Renewable Energy and Grid Interface Technologies
- One Year Post Graduate Diploma Course in Smart Grid Technologies
- One Year Post Graduate Diploma Course in Power Management
- One Year Post Graduate Diploma Course in Power System Operation
- One Year Post Graduate Diploma Course in Sub-Transmission & Distribution system
- Nine Months Post Graduate Diploma Course in Hydro Power Plant Engineering
- Six Months Post Graduate Diploma Course in Transmission and Distribution System for Engineers
- One Year Post Diploma Course in Power Plant Engineering
- Six Months Post Diploma Course in Hydro Power Plant Engineering

Our students of Post Graduate Diploma Courses (PGDC) and Post Diploma Courses (PDC) have been recruited by reputed companies. For the list of recruiter companies refer chapter **NPTI Clientele and Recruiters.** 

#### **Induction Training**

NPTI has imparted induction training to fresh Graduate Engineers/Executives of various Power Sector Organizations for details refer chapter **NPTI Clientele and Recruiters.** 

#### **On - Job Training**

On-job training is an essential supplement to formal training which provides the trainees an understanding of the functions through involvement with real work situations. Special stress is laid on acquisition of required skills for undertaking specific responsibilities in a particular area of work. On-job experience simplifies and consolidates knowledge in a particular sphere for which special type of work books have been designed according to the needs of area where on-job training is conducted.

#### **Online Training Courses**

NPTI is conducting online training programs on all aspects of Renewable Energy and Power sector. After Covid-19 outbreak many short term training programs have been converted and conducted in the online mode as well as offline mode. The long term and medium term training programs are also being conducted in blended mode (online & offline) during Covid-19 pandemic.

NPTI is also conducting a blended training program for REMC Operators, in association with GIZ. The training is a blend of 12 weeks online and 1 week classroom training at NPTI. International and national experts have been involved in preparation of the modules and conducting the classroom training.

#### NPTI Recogonized as Cadre Training Institute for Central Power Engineering Services

NPTI is functioning as an Apex Cadre Training Institute for the engineers/officers of Central Power Engineering Services. NPTI is conducting fifth batch of 26 weeks Induction Training Programs for the Asstt. Directors of CEA.

#### **CUSTOMIZED TRAINING PROGRAMS**

#### Training on "Measures Relating to Safety and Electrical Supply"

The major focus on this program is to upgrade the knowledge of safety in handling the electrical equipments in compliance with CEA Safety Regulation 2010 in the areas of work and sub-station. This program is conducted for ONGC executives and B.Tech final year student of various engineering colleges.

#### **Training Program for Forum of Regulators**

National Power Training Institute, Faridabad organizes two days residential training program on "Protection of Consumer Interest" for the ombudsman and officials from the Consumer Grievance Redressal Forums, Regulatory commissions of the various states. This program is conducted every year under the aegis of Forum Of Regulators. The objective of the program is to discuss on various regulations, laws, consumer issues and case studies pertaining to the power sector.



Inauguration of NPTI Training Brochure and Course Modules of Training & Capacity Building for DISCOMs Employees Under Revamped Distribution Sector Scheme by Shri R.K Singh, Hon'ble Cabinet Minister of Power and New & Renewable Energy and Shri Krishan Pal, Hon'ble Minister of State for Power and Heavy Industries during Review Planning & Monitoring (RPM) Meeting with States & State Power Utilities, New Delhi, 17th December, 2021.

#### **Training Program for Distribution Linemen**

NPTI has conducted "Urja Sarathi", "Uttam Urja Sarathi" "Urja Sarathi 2.0" Training Programs for the lineman of BSES Rajdhani Power Ltd., Delhi. Around 2500 Distribution Linemen were comprehensively trained and certified in the areas of basics of Electricity, Poles, Pole erection, mounting, stringing, clearances, sub-station equipment such as DTs, Circuit Breakers, earthing with their safe operating procedures and accent on Safety. The feedback from BSES is that this training has immensely benefitted the Distribution Linemen with zero number of accident and casualty for last one year.

#### **Capacity Building Training Program**

NPTI is conducting 4 weeks "Technician Development Program" for the Capacity Building of DISCOMs of NER States. 6States are participating in this training program.

#### **Power System Operation Training and Certification**

NPTI has been conducting Certification of Power System Operators since 2011. Training Courses at NPTI, Corporate Office, Faridabad, Power System Training Institute (PSTI), Bengaluru and NPTI (NER), Guwahati equiped with necessary inputs to take up the various System Operation Certification Examinations.

#### **Basic level on-line System Operator Certification**

A total of 1529 System Operators were certified against 1899 who appeared for the Basic Level Certification Examinations.

Specialist level courses on 'Regulatory Framework in Power Sector', 'Power System Reliability', 'Renewable Energy Sources and Grid Integration', 'Power System Logistics' and 'Power Market Specialist' are being conducted both at Corporate Office, Faridabad and at PSTI, Bengaluru.

#### **Specialist Level Online System Operator Certification**

In "Regulatory Framework in Power Sector" 429 System Operators appeared for the certification examination out of which 260 qualified.

In "Power System Reliability" 198 System Operators appeared out of which 126 were qualified. In "Power System Logistics" 44 System Operators appeared out of which 23 were qualified.

#### **Simulator Training**

Simulator at various locations are housed in an existing Simulator Training Centre with classrooms and other infrastructure facilities for a full fledged training activity. The simulator design includes equipment, instrumentation and controls that enables operator to function in all module with optimal specified operation conditions including normal, abnormal or emergency operating conditions. The protections, interlocks, logics and controls of the real plant are incorporated in the simulation system.



Simulator Training at NPTI Nagpur



Multifunction simulator Training Program for Trainees of PDC, TPPEE from NPTI Neyveli

#### **PROGRAMS OF NATIONAL IMPORTANCE**

#### **Skill Development Training**

NPTI has been empanelled as a Government agency with Ministry of Rural Development (MoRD) for conducting NSQF aligned training program on all India basis for Power Sector & Renewable Energy Sector vide notification no. 5/2019, dated: 26.02.2019 and the MoU has been signed with MoRD on 04.04.2019.

Vide Gazette notification No. 449, F. 43001/02/2013-NSDA, dated 05.12.2019 of Ministry of Skill Development and Entrepreneurship & 23rd meeting of NSQC held on 22.08.2019, NPTI has been recognised as an Assessment & Certification body for 60 Qualifications in Power Sector and Renewable Energy Sector.

#### ATAL Faculty Development Program

NPTI is conducting AICTE Training & Learning Academy (ATAL) faculty development program in the areas of recent technological advancement across India through its eleven (11) institutes.

Capacity Building of DISCOMs under Revamped Distribution Sector Scheme for Discoms

NPTI engaged for Carrying out the capacity building programs under Revamped Distribution Sector Scheme (RDSS) for DISCOMs Employees.

#### **Cyber Security Programs for Power Sector**



One day National Seminar on "Increasing Cyber Resilience of the Nation" organised by NPTI & CEA, at NPTI, (CO), Faridabad 28th Oct inaugurated by Shri Alok Kumar, Secretary MoP & launch of Curriculum on Cyber Security, in the presence of Chairman, Member (GO&D),CE(IT&CS),CEA,NCSC & DG,NPTI

#### INTERNATIONAL TRAINING

Professionals from various countries like Afghanistan, Bangladesh, Belarus, Bhutan, Cambodia, Ecuador, Ethiopia, Iraq, Kenya, Libya, Malaysia, Mexico, Myanmar, Nepal, Nigeria, Oman, Papua New Guinea, Philippines, South America, Sri Lanka, Sudan, Syria, UAE, Zambia, Zimbabwe etc. have also undergone training at NPTI's various training Institutes.

#### ITEC Program, Ministry of External Affairs, Govt. of India

NPTI is conducting training programs through ITEC, MEA, Govt. of India for the countries of the world i.e. SAARC, African Countries etc. 48 engineers of Bhutan Power Sector were trained under this scheme at NPTI in various training programs.

#### **INFRASTRUCTURAL FACILITIES AT NPTI**

The Institutes offer world class infrastructural facilities like, excellent simulators, relevant laboratories and workshops, computer labs well stocked libraries with national and international journals and reference materials, fully air-conditioned classrooms, conference halls and board rooms with video conferencing facility, modern classrooms equipped with latest teaching aids, wi-fi enabled campus, separate hostel for students, executives and international trainees, auditorium, gymnasiums and playgrounds.



Live Line Maintenance at 400 KV

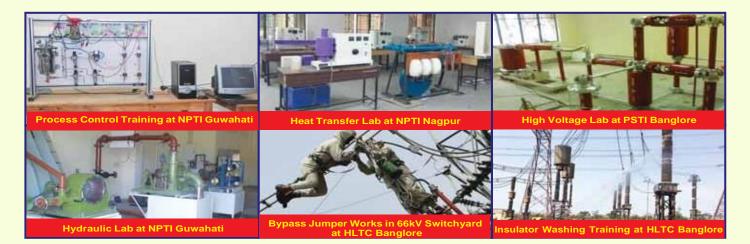
Mock drill testing at HLTC, Bengaluru

#### Hot Line Training Centre

A facility has been created at NPTI's Hot Line Training Centre (HLTC), Bengaluru for Live Line Maintenance of Transmission Lines upto 400 KV (first of its kind in Asia) which enables the trained personnel to attend the maintenance requirements without power interruptions. Facility for water washing of sub-station equipments is also available.

#### Models

All the Institutes have good number of Static and Dynamic models relating to various main systems and equipments of Thermal Power Stations, Hydro Power Stations and Power Systems. Models for demonstration in the diversified areas of training in NPTI are also available.



#### Laboratories/Workshop

The laboratories and Workshops are the prerequisites for providing on-job, hands-on training in the maintenance aspects. The institutes have well equipped laboratories and workshops with wide ranging facilities for imparting training to all cadres including Technicians, Operators and Engineers, in various aspects of Power Generation, Transmission Distribution and Operation. Some of the areas

where expertise has been built up are:

• Electrical laboratories with facilities for testing of relays, Control and Instrumentation Laboratories with facilities for testing, calibration and repairs of different types of process control instruments.

- Maintenance workshops for Valves, Bearings & Shaft alignment, Pumps, Motors etc.
- Power System Studies Laboratories are equipped with Transmission and Distribution System

Software where studies such as load flow analysis, short circuit studies, transient stability studies, relay coordination studies, optimal capacitor placement, network reduction and optimal separation point can be conducted..

#### **NPTI Publications and Multi Media CBT Packages**

NPTI has published around 99 Training Manuals for different courses. NPTI has also developed more than 55 MultimediaComputer Based Training Packages for power professionals.

#### Library

NPTI Corporate Centre library has a large collection of books and video packages on power generation, transmission and distribution technologies, various branches of engineering, science, industrial relations, management etc. It subscribes to a number of Indian and foreign technical journals and periodicals.

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All regional institutes have modern libraries stocking a large collection of books and multimedia films on Power Station Technology, Mechanical Engineering, Electrical Engineering, Power Plant, Chemistry, Control and Instrumentation, Electronics, Computers, Management etc.



#### Auditorium, Conference Hall, Residential Quarters

All Institutes of NPTI are situated in picturesque landscapes. They have auditorium/ conference hall and classrooms with most modern amenities for conducting the training programs, conferences, seminars and workshops. All the campuses are housed with residential quarters for the employees, guest house, hostels, sports facilities, gymnasium and canteen. The campuses and hostels are Wi-Fi enabled and provide a hygienic and homely atmosphere to the trainees.

#### **Hostel Facilities**

Residential Services are available for Regular Trainees, Executives and Foreign National in all the Institutes. Well furnished hostels for Executive and Trainees with modern lodging and boarding facilities are available in all Institutes.

NPTI Corporate Office, Faridabad can accommodate about 550 trainees. An international hostel with 24 double beddedrooms is available at Faridabad.

Well furnished hostels are also available at each of the regional institute of NPTI where modern and hygienic lodging and boarding facilities are available. Those desirous of availing the hostel facilities will have to intimate in advance to the Principal Director/Director and obtain confirmation for the same. In case a participant does not stay in the hostel, he has to make his own arrangements to reach the Institute. Recreation and indoor sports facilities like Table Tennis, Badminton, Carom, Chess etc. are available for trainees in Hostel, creating a congenial atmosphere of a Home away from Home.

The hostel accommodation is provided to the trainees only for the period of training course.



#### Classrooms

All the institutes have modern classrooms equipped with latest teaching aids and audio visual aids, required for efficient running of training programs. Video conferencing facility is available in all the institutes.

#### Medical Services

Services of well qualified doctors are available on part-time basis in each of the Institute Complex.

#### **Faculty Members**

NPTI's faculty consists of highly qualified, award winning, scholarly and experienced men and women who are leaders in their respective fields. Our faculty members come from across the country, sharing their perspective, wealth of knowledge, experience, qualification and expertise with students and working Professionals. Faculty members at NPTI have successfully developed numerous industry responsive courses to ensure trainees bring out the best in them and excel in their careers. Details of the faculty members are available on NPTI's website www.npti.gov.in.

#### HOW TO APPLY FOR PARTICIPATION

NPTI regularly organizes Training programs/ Seminars/ Workshops in collaboration with National/ International Power Sector Organizations, details of which are prominently displayed on the website.

Nomination along with course fee for various courses may be sent to The Principal Director/ Director of the respective institute at least 15 days in advance from the date of commencement of the course. Aspiring students for PGDC courses may visit the website, and keep abreast with announcements of the various programs and may apply as per the instructions therein. The information and brochures of different workshops, seminars and conferences being conducted at NPTI are also available on the website. Application/ Registration to the workshops/ seminars/ conferences may be done as mentioned in the respective brochures.



Two weeks Training Program on Renewable Energy & it's Conversion conducted by NPTI, Durgapur

### CONSULTANCY SERVICES

In order to serve the industry requirements and make best usage of infrastructure and expertise, NPTI has ventured into providing consultancy services in a number of relevant areas of Energy Sector.



Review Planning & Monitoring (RPM) Meeting with States & State Power Utilities, New Delhi, 17 Dec 2021

In order to serve the industry requirements and make best usage of infrastructure and expertise, NPTI has been providing consultancy services to various Power Sector Organisations. The salient details are mentioned below:

### i) DPRs under R-APDRP, Part-B for the 11th Plan

- Energy & Power Department of Sikkim (2 Towns)
- Purvanchal Vidyut Vitran Nigam limited (PVVNL), Varanasi (29 Towns).
- Tripura State Electricity Corporation Ltd. (TSECL), Tripura (16 Towns).
- Assam Power Development Corporation Ltd. (APDCL), Assam (69 Towns).

#### ii) Tier-I, Third Party Inspection Agency (TPIA) Quality Inspection Works for Rajiv Gandhi Grameen Vidyut Yojana (RGGVY) for the 10th & 11th Plans

- Mangalore Electricity Supply Company Ltd. (MESCOM), Karnataka, for their Chikmagalur & Kadur Districts for 11th Plan.
- Gulbarga Electricity Supply Company Ltd. (GESCOM), Karnataka, for all their Districts viz., Bidar, Raichur, Koppal, Bellaryetc.
- Hubli Electricity Supply Company Ltd. (HESCOM), Karnataka for all their 5 Districts viz. Dharwad, Gadag, Haveri, Bijapur & Bagalko.

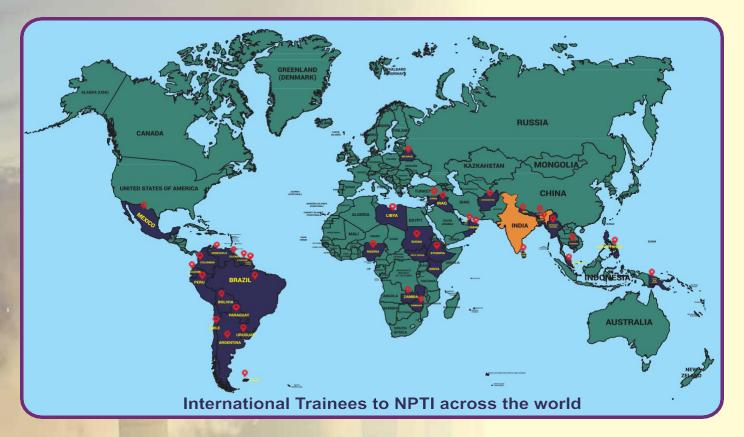
#### iii) Other Consultancy Assignments completed

- NPTI provided Consultancy services to WAPCOS for preparation of DPR for establishment of Power Training Institute in Bhutan.
- NPTI provided Consultancy services to NHPC for preparation of DPR for establishment of Hydro Power Training Institute in Jammu & Kashmir.
- NPTI in association with TATA Consulting Engineers (TCE) has completed an assignment of preparation of a Feasibility Study for establishing a "National Power Academy" in the Kingdom of Saudi Arabia.
- NPTI worked as REC Quality Monitors (RQM) for Tier II Inspection of RGGVY works for the Six (6) states viz., Mizoram, Manipur, Meghalaya, Nagaland, Tripura and Jammu & Kashmir. The assignment included Quality Inspections of Pre-shipment and Village Electrification Works as Rural Electrification Corporation's Quality Monitors (RQM).
- NPTI carried out an assignment of Commercial System Analysis of the Power Distribution Company of Purvanchal Vidyut Vitran Nigam Ltd. (PuVVNL), Varanasi for Reduction in Revenue Loss in its various electricity circles.
- Based on the appreciable performance of the assignments carried out, PuVVNL, Varanasi again awarded Meter Testing, Checking and replacement in its various electricity distribution circles.
- Bureau of Energy Efficiency (BEE) awarded a Consultancy Assignment for Training of Master Trainers on "Demand Side Management & Energy Efficiency" for various DISCOMs in India. The assignment includes visits to various Distribution Utilities across India to assess their training needs and formulate/design syllabus and Course Contents and train the junior & middle management level officers for the best DSM & Energy Efficiency practices for furthering the cause in their respective Distribution Utilities.
- Dakshinanchal Vidyut Vitran Nigam Ltd. (DVVNL), Agra, engaged NPTI for Preparation of DPRs of 17 Distribution Circles of DVVNL, comprising 21 Districts of Uttar Pradesh under Integrated Power Development Scheme (IPDS).
- Dakshinanchal Vidyut Vitran Nigam Ltd. (DVVNL), Agra engaged NPTI for Preparation of DPRs of 07 Districts of DVVNL of Uttar Pradesh under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

#### iv) Current Consultancy Work/Projects

- PMA work in NESCO & WESCO, Odisha: NPTI bagged a Consultancy assignment as Project Management Agency (PMA) for DDUGJY & IPDS works in WESCO & NESCO Utility area of OPTCL.
- **IPDS project of APDCL, Assam:** NPTI has bagged Letter of Award (December 2018) for engagement as Project Management Agency (PMA) for the works under IPDS from Assam Power Distribution Company Ltd (APDCL).
- NTPC- TPIEA Work: NPTI has been awarded the work of Third-Party Inspection Agency (TPIA) by NTPC for TPIA Inspection of 15 Districts of Odisha under 12th Plan DDUGJY Projects being implemented by NTPC. NPTI has to conduct inspection of 7000 Villages and submit the reports accordingly to NTPC.
- PuVVNL Project Management Agency (PMA)/Consultant NPTI has been appointed as Project Management Agency (PMA)/Consultant to provide services for the works of Unmetered to metered consumers in rural areas of all districts under in PuVVNL to provide complete Project Management services by hand holding the project of PuVVNL, Varanasi DISCOM in the state of Uttar Pradesh under "the works of Unmetered to Metered consumers in rural areas of all districts under in PuVVNL.
- PuVVNL DPR NPTI has been awarded the work for "Preparation of DPR including SCADAsystem for conversion of HT/LT over head line to undergrounding, erection of DT and electrical connection of consumer from over head to underground and other associated construction work of different area of Varanasi City under Purvanchal Vidyut Vitran Nigam Ltd."
- Vigilance Inspection of UPPCL- NPTI has been appointed as an agency to carry out the Third Party Audit of Performance of billing agencies in rural areas of Uttar Pradesh Power Corporation Limited, a holding company of five Discoms viz. Dakshinanchal Vidyut Vitran Nigam Ltd. (DVVNL). Madhyanchal Vidyut Vitran Nigam Ltd. (MVVNL), Paschimanchal Vidyut Vitran Nigam Ltd. (PVVNL), Purvanchal Vidyut Vitaran Nigam Limited. (PuVVNL) and KESCo – Kanpur. UPPCL Mainpuri – NPTI has conducted the work of "Third Party Independent Evaluating Agency for Quality Monitoring (Assurance) work in Saubhagya Scheme in 30 villages of District Mainpuri, Uttar Pradesh".
- Audit of TRW of UPPCL- NPTI has been awarded the work of Technical, Material & Financial Audit of medium & small Distribution Transformer Repair Workshops in Discoms of Uttar Pradesh.
- **TPIA Work of Delhi Transco Limited** NPTI has been awarded the Third party inspection of equipments/material,civil works, electrical works and technical audit of substation and Tr. Lines of Delhi Transco Limited.
- **TPIA work of DVVNL Agra-** NPTI has been awarded the work of Third Party Inspection Agency(TPIA) for inspection for Materials /Equipments procured in favour of Dakshinanchal Vidyut Vitran Nigam Limited. (DVVNL), Agra.
- DPR of Ayodhya city under MVVNL- NPTI has been awarded LOI for the work of "Preparation of DPR with estimate including SCADA System for conversion of HT (33KV & 11KV)/LT over head line to undergrounding, erection of distribution transformer and electrical connection of consumer from over head to underground with GPS and other associated construction work for existing and proposed system of different area of Ayodhya city Nagar Nigam limits under Madhyanchal Vidyut Vitran Nigam Ltd."

#### CLIENTELE AND RECRUITERS OF NPTI



#### **INTERNATIONAL CLIENTELE**

Afghanistan, Bangladesh, Belarus, Bhutan, Cambodia, Ecuador, Ethiopia, Iraq, Kenya, Libya, Malaysia, Mexico, Myanmar, Nepal, Nigeria, Oman, Papua New Guinea, Philippines, South America, Sri Lanka, Sudan, Syria, UAE, Zambia, Zimbabwe

#### NATIONAL CLIENTELE

NPTI has been catering to the Training Needs of Power Sector Organizations and Process Industries such as Steel, Cement, Aluminum, Fertilizers, Refineries viz., ACC, AECO, APGENCO, Avantha Power & Infrastructure Ltd., B.C. Roy Engineering Collage, Durgapur, (W.B.), BBMB, BEIET Batinda, BHEL, BIET Jhansi, Bokaro Power Supply Corporation Ltd., BPCL, BSES, C.E.T. Bhubaneswar (Odisha), C.V. Raman Engineering College, Bhubaneswar (Odisha), CEA, CESC, Chhattisgarh State Power Generation Corporation Ltd., Chhattisgarh State Power Transmission Ltd., CLP (I) Pvt. Ltd., CSPTCL, CVPPL, Dakshin Haryana Bijli Vitran Nigam Ltd., DPL, DTL, DVC, ECIL, FACT, Forum of Regulators, GAIL, GITA Bhubaneswar, GITAM Hyderabad, GMR Energy Ltd., GRASIM Industries, HINDALCO, Hindustan Copper Limited, HPGCL, Ideal Energy Power Ltd., IFFCO, IIIT Bhubaneswar, IIT Indore, IOCL, IRCON, IREDA, ITM Gwalior, Jindal Power, JSS Academy Noida (U.P.), KPCL, KRIBHCO, KSEB, L&T Power Ltd., Lanco Infratech Ltd., NALCO, National Hydroelectric Power Corporation Ltd., NEEPCO, Neotia University (Kolkata), NFE, MHPC, NIST Bhubaneswar (Odisha), NIT Hammirpur, NIT Riapur, NIT Warangal (Telangana), NITS Gwalior, NLC, NPC, NTPC Baruani, NTPC, OHPC, ONGC, OPGCL, P.K. University, Shivpuri (M.P.), POSOCO, Power Grid Corporation of India Ltd., PPN Power, Generating Company Ltd., Rajasthan Rajya Vidyut Utpadan Nigam Ltd., Sterlite Power Transmission THDC, Tata Power Company Ltd., THDC LTD., Torrent Power Ltd., Toshiba, Udupi Power Corporation Ltd., UP Rajya Vidyut Utpadan Nigam Ltd., UPRVUNL, VCE Burla Odisha, WAPCOS, etc.

#### RECRUITERS

Our students of Post Graduate Diploma Courses (PGDC) and Post Diploma Courses (PDC) have been recruited by reputed companies like ABB, ABPS Advisory, Adani Power, APPCPL, Atkins Global, Azure Power, Bajaj Electricals, Mumbai, Bajaj Energy (LPGCL), Bhadreshwar Vidyut Private Limited (BVPL), BSES, Care, CFL, CLP, CMR Ltd. Warora, Crisil, Datagen, Deloitte, Easun Reyrolle, Eco Securities, Enercon Capital, Energy Exempler, Erudite, Enzen Essar Power, Essar Power, ETAC, Feedback Ventures, Gammon India, Genus Power & Infrastructure, Global, GMR, HINDALCO, HPPL, 12S Technologies, IL&FS, Infraline, JK Cement, JP Power, JVS Electronics, Kalkitech, Kalpataru Power Transmission, Kamini Engg. Corp. (KEC), KPMG, KSK Energy Ventures, L&T (NABHA Power LTD.), Lahmeyer, Lanco, LNJ Bhilwara, Manav Energy, Manikaran Power, Moser Baer, NCC, NDPL, Noida Power, Oblum Electric, Open System International, Philips Carbon Black Ltd., Power Mech. Ltd., PRDC, Premier Plant Services Pvt. Ltd., PTC, PWC, Reliance Power, ReNew Power, SAI Power (KSK Power), Samsung, Satyam, Schweitzer Engineering Lab, Secure Meters, Shirpur Paper Mill, Shree Cements Ltd., SKSPGCL,SKS, SMS Infra, Nagpur, Sterlite Power HPPL, Sterlite Power, Suzlon, Tata Power, TATA Steel, Teems India Towerlines, TERI, Thermax Co., Torrent Power, Toshiba T&D, Vedanta PLC (BALCO), Korba, Vedanta, Vijay Electricals, Virtues Energy, VISASteel Ltd. Orissa, Wind World India Ltd., etc.



























**Assam** Dakhingaon, Kahilipara, Guwahati - 781019

Karnataka HLTC, 26th Km, Kanakapura Road, Somanahalli Gate, Udaypura Post, Bengaluru - 560082

Maharashtra South Ambazari Road, Gopal Nagar, Nagpur - 440 022

Tamil Nadu Block 14, NLC Township, Neyveli - 607803

### **NPTI's Locations in India**

Haryana NPTI Complex, Sector-33, Faridabad - 121 003

**Kerala** Pallippuram, Cherthala Taluka, District: Alappuzha - 688001

New Delhi Badarpur, New Delhi -110044

West Bengal City Centre, Durgapur - 7132616 Karnataka PSTI, PO. Box: 8201 Subramanyapura Road, Banashankari II Stage, Bengaluru - 560070

Madhya Pradesh Shyampur, Satanwada, District : Shivpuri - 473551

Punjab Opp. Nangal Dam Rly. Station, Nangal, District : Ropar - 140124

### TRAINING PROGRAMS

### NPTI Corporate Office, Faridabad

### SIMULATOR TRAINING PROGRAM

S.No.	Name of Course	Institute	Duration	Date of Commencement
i. DAS	Based Simulator System and Cor	nventional	& Video Pro	cess Control System
1.	500 MW Fossil Fuel Power Plant	Faridabad	02 Weeks	11.04.2022, 22.04.2022,
				16.05.2022, 27.05.2022,
				13.06.2022, 24.06.2022,
				11.07.2022, 22.07.2022,
				16.08.2022, 27.08.2022,
				12.09.2022, 23.09.2022,
				17.10.2022, 28.10.2022,
				07.11.2022, 18.11.2022,
				05.12.2022, 16.12.2022,
				09.01.2023, 20.01.2023,
				06,02.2023, 17.02.2023,
				13.03.2023, 24.03.2023,
ii. DCS	Based Simulator System	I	L	
2.	430 MW Combined Cycle Gas	Faridabad	02 Weeks	25.04.2022, 06.05.2022,
	Turbine Power Plant			16.05.2022, 27.05.2022,
				27.06.2022, 08.07.2022,
				18.07.2022, 29.07.2022,
				22.08.2022, 02.09.2022,
				12.09.2022, 24.09.2022,
				17.10.2022, 28.10.2022,
				21.11.2022, 02.12.2022,
				12.12.2022, 23.12.2022,
				02,01.2023, 13.01.2023,
				06.02.2023, 17.02.2023,
				13.03.2023, 24.03.2023,
3.	800 MW/660 MW(Emulated) Super	Faridabad	02 Weeks	18.04.2022, 29.04.2022,
	Critical Thermal Power Plant			16.05.2022, 27.05.2022,
	Simulator Training			13.06.2022, 24.06.2022,
	-			18.07.2022, 29.07.2022,
				22.08.2022, 02.09.2022,
				26.09.2022, 07.10.2022,
				24.10.2022, 08.11.2022,
				21.11.2022, 02.12.2022,
				19.12.2022, 30.12.2022,
				16.01.2023, 27.01.2023,
				14.02.2023, 25.02.2023,
				13.03.2023, 24.03.2023,
iii. Mult	functional Simulator Configurati	ons		
1.	210 MW- Thermal Power Plant	Faridabad	02 Weeks	17.05.2022, 23.05.2022,
				04.07.2022, 15.07.2022,
				05.09.2022, 16.09.2022,
				12.12.2022, 23.12.2022,
				06.02.2023, 17.02.2023,

2.	250 MW-Hydro Power Plant	Faridabad	01 Weeks	02.05.2022, 09.05.2022, 22.08.2022, 26.08.2022, 19.09.2022, 23.09.2022, 05.12.2022, 09.12.2022, 16.01.2023, 20.01.2023, 13.03.2023, 17.03.2023,
3.	500 MW-Hydro Power Plant	Faridabad	02 Weeks	18.04.2022, 29.04.2022, 18.07.2022, 29.07.2022, 31.10.2022, 11.11.2022, 02.01.2023, 13.01.2023, 27.02.2023, 13.03.2023,
4.	550 MW-Combined Cycle Power Plant	Faridabad	02 Weeks	04.04.2022, 19.04.2022, 06.06.2022, 17.06.2022, 01.08.2022, 16.08.2022, 14.11.2022, 25.11.2022, 23.01.2023, 03.02.2023,
5.	SCAGA & Smart Grid Simulator	Faridabad	01 Weeks	20.06.2022, 24.06.2022, 26.09.2022, 30.09.2022, 03.10.2022, 10.10.2022, 26.12.2022, 30.12.2022, 20.02.2023, 24.02.2023, 20.03.2023, 24.03.2023,

### LONG TERM TRAINING PROGRAMS

S. No.	Name of Course	Institute	Duration	Date of Commencement
1.	Post Graduate Diploma Course (PGDC) in Power Plant Engineering	Faridabad	52 Weeks	
0		Faridabad	52 Weeks	
2.	Post Graduate Diploma Course (PGDC) in Renewable Energy and Grid Interface Technology	Fanuabau	52 Weeks	To be announced, visit
3.	Post Graduate Diploma Course (PGDC) in Smart Grid Technologies	Faridabad	52 Weeks	NPTI website: <u>www.npti.gov.in</u>
4.	Post Graduate Diploma Course (PGDC) in Power Management	Faridabad	52 Weeks	
5.	Post Graduate Diploma Course (PGDC) in Power System Operation	Faridabad	52 Weeks	

### MEDIUM TERM TRAINING COURSES (5-16 WEEKS)

S. No.	Name of Course	Institute	Duration	Date of Commencement
1.	3 Month Course on "Design Erection and Commissioning of Solar Power Plants"	Faridabad	3 Month	09.05.2022
2.	3 Month Course on 'Distribution Substation Management & Optimal Utilization of Components'	Faridabad	3 Month	22.08.2022
3.	Post Graduate Certificate Course (PGCC) in Power Plant Engineering	Faridabad	3 Month	22.08.2022
4.	Post Graduate Certificate Course (PGCC) in E-Mobility and Supervisors	Faridabad	4 Month	14.11.2022

5.	New and Renewable Sources and Grid Integration in India	Faridabad	1.5 Month	11.04.2022
6.	Executive Development Program for the Supervisory Staff Working in Finance & Account Department		1.5 Month	05.09.2022

### SHORT TERM TRAINING COURSES (1 DAY TO 4 WEEKS)

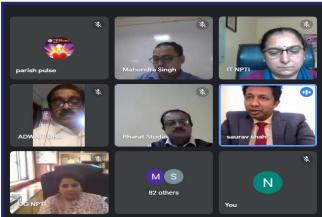
S. No.	Name of Course	Institute	Duration	Date of Commencement
<b>3. NO.</b>	i. POWER GENERATION A			
4				
1.	Issues Related to Supercritical Technology		02 Days	23.01.2023
2.	Flexible Operation of Thermal Power Plants in India	Faridabad	03 Days	15.06.2022
3.	Thermal Power Station Operation	Faridabad	01 Weeks	24.10.2022
4.	Renovation & Modernization of Thermal Power Plant/ Station	Faridabad	01 Weeks	05.12.2022
5.	Stream Turbine Governing	Faridabad	03 Days	27.07.2022
6.	Generator & Auxiliaries Including Excitation System	Faridabad	01 Weeks	22.08.2022
7.	Thermal Power Plant Efficiency & Performance Monitoring	Faridabad	03 Days	09.11.2022
8.	Valves and Pumps in Power Plant Engineering	Faridabad	03 Days	21.06.2022
9.	Vibrational Analysis	Faridabad	03 Days	05.04.2022
10.	Pump Operation, Maintenance and Performance Monitoring	Faridabad	03 Days	10.10.2020
	ii. HYDRO POWER RE	NEWABLE E	NERGY SYS	TEMS
11.	Small, Mini and Micro Hydro Power Generation	Faridabad	03 Days	19.10.2022
12.	Specialized Training Program on Hydro Power Plant Engineering	Faridabad	03 Weeks	09.05.2022
13.	Entrepreneurship Development Program on Solar PV Rooftop	Faridabad	01 Weeks	19.09.2022
14.	Solar Power Generation Technology –On Grid & Off Grid	Faridabad	02 Days	13.09.2022
15.	Hybrid Renewable Energy Systems (HRES)	Faridabad	02 Days	19.12.2022
16.	Green Energy for Clean Environment/Green Energy Technologies	Faridabad	01 Days	04.07.2022
17.	Development of Floating Solar PV System (FSPV) in India	Faridabad	01 Days	17.11.2022
18.	Waste to Energy Technology: Green Energy Development	Faridabad	02 Days	14.11.2022
19.	Skill Development Program on Renewable Energy	Faridabad	04 Weeks	02.01.2023
	iii. TRANSMISSION	AND DISTRI	BUTION SYST	ГЕМ
20.	Power System Studies & Load Despatch	Faridabad	03 Days	06.04.2022
21.	Operation & Maintenance (O&M) of Transmission Lines & Sub- Station	Faridabad	01 Weeks	02.05.2022
22.	Operation & Maintenance (O&M) of HT/LT Switchgear	Faridabad	01 Weeks	18.07.2022

23.	Operation & Maintenance (O&M) HVDC Transmission Systems	Faridabad	01 Weeks	01.08.2022
24.	Condition Monitoring Residual Life Assessment (RLA) & LE of Substation Equipment	Faridabad	03 Days	06.02.2023
25.	Advanced Power System Protection	Faridabad	01 Weeks	13.02.2023
26.	Power Quality Measurement	Faridabad	03 Days	06.03.2023
20.	Distribution Network Planning for	Faridabad	03 Days	To be announced
	UG cable Systems			
28.	Best Practices in Distribution Operation & Management	Faridabad	01 Weeks	27.02.2023
	iv. DISASTER AN	D SAFETY N	ANAGEMEN	Т
29.	Fire Prevention, Protection & Safety	Faridabad	03 Days	14.12.2022
30.	Electrical Safety and Inspection of Electrical Installations, Accident, Prevention Recent Trends	Faridabad	03 Days	26.10.2022
31.	"Measures Relating to Safety and Electrical Supply"	Faridabad	01 Weeks	To be announced
32.	Industrial Safety	Faridabad	02 Days	17.08.2022
v. GRI	D INTEGRATION, SMART GRID& SH	ART CITIES	EV AND EN	ERGY STORAGE SYSTEM
33.	Renewable Energy & Grid Integration Technologies	Faridabad	03 Days	12.09.2022
34.	Smart Grids and Renewable Energy Integration	Faridabad	01 Days	22.09.2022
35.	Development of Microgrid (MG) Macrogrid(MCG) In India	Faridabad	03 Days	27.04.2022
36.	Smart Grid and Smart Metering Technologies and Applications	Faridabad	03 Days	18.05.2022
37.	Smart Power Flow Controller for Smarter Grid Application	Faridabad	01 Days	
38.	Smart Grids For Smart Cities	Faridabad	03 Days	30.05.2022
39.	Battery Energy Storage & Micro Grids in India	Faridabad	02 Days	11.07.2022
40.	Renewable Energy and Grid Interface Technology & Regulatory Framework		02 Days	05.05.2022
41	Grid Integration of Hybrid Generation : Review of existing Sub- Station Controls required for upcoming RE Mix in Switchyard and handling Intermittency with Grid and Energy Storage options	Faridabad	03 Days	28.09.2022
42.	Smart Transmission & Distribution System	Faridabad	01 Weeks	21.11.2022
	vi. IT, ICT, GIS & RS, BIG DAT	A ANALYTIC	S AND CYBE	ER SECURITY
43.	Cyber Security in Power Sector	Faridabad	01 Days	08.08.2022
44.	Smart Grid Technologies, Internet of things and Cyber Security	Faridabad	02 Days	14.07.2022
	vii. ENERGY EFFICIENCY, ENERGY	AUDIT AND	DEMAND SI	DE MANAGEMENT
45.	Energy Audit and Loss Reduction in T&D Systems	Faridabad	02 Days	12.08.2022
46.	Energy Efficiency in Electrical Utilities	Faridabad	03 Days	06.07.2022
47.	Big Data Analytics & Data Science Training covering descriptive, Prescriptive & predictive analytic hands-on case studies with	Faridabad	01 Weeks	27.06.2022

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	Industrial Orientation (Energy & Utility)			
48.	Accelerating Energy Efficiency in India : Initiatives & Opportunities	Faridabad	02 Days	25.04.2022
49.	Efficient Energy Management	Faridabad	01 Days	24.06.2022
	viii. POWER MANAGEMENT AND M	IANAGEMEN	IT DEVELOPI	MENT PROGRAMS
50.	Regulatory Framework in Power Sector	Faridabad	02 Days	20.02.2023
51.	Open Access, Power Training and Tariffs-ABT Scenario	Faridabad	03 Days	02.03.2023
52.	Management of Renewable Energy (Solar Energy in Particular); Finance and Economics of Renewable Energy	Faridabad	02 Days	20.02.2023
53.	Contract Management	Faridabad	02 Days	23.05.2022
54.	Government e-Market (GeM) for Sellers & Service Providers	Faridabad	02 Days	03.10.2022
55.	Procurement Procedures & Contracting	Faridabad	03 Days	05.01.2023
56.	Regulatory Issues in Power Sector	Faridabad	05 Days	06.03.2023
57.	Leadership Skills and Stress Management	Faridabad	02 Days	06.06.2022
58.	Human Resource Development Program for Finance Officer/Manager	Faridabad	01 Weeks	09.01.2023
	ix. ENVIRONM	ENTAL MAN	AGEMENT	
59.	Environmental Issues in Thermal Power Stations and FGD Technology	Faridabad	02 Days	16.01.2023
60.	Air Pollution Monitoring & Control Technologies	Faridabad	02 Days	15.09.2022
61.	Environmental Impact Assessment and Environment Management Plan	Faridabad	03 Days	30.01.2023



Valedictory function and group photographs of NTPC Batch- III for 2 weeks CCGT Simulator Training Program at NPTI Faridabad.



One Day On-Line Program on "Smart Metering: Challenges and Applications" for DISCOMs Employees by NPTI Faridabad.

	Customized Training Program				
S.No.	Title of the Program	Duration	Participant/ Organization		
1	Training on Sensitizing the Farmers on stubble/crop residue (Parali) burning	1-day	Farmers		
2	Training Program of supply chain of stubble/crop residue	3-days	PELLET Manufacturers and Bale suppliers		
3	Training Program Next Generation Distribution System Transition towards Smart Grid	1-week	Foreign Nationals		
4	Training Program on Smart Metering: Challenges and Application	1-week	Foreign Nationals		
5	Training Program-1 Introduction to AMI and role of AMI in reducing AT&C losses	3-days	DISCOM Employee (Jr. & Middle Management)		
6	Training Program-2 AMI System Design and Program Management	3-days	DISCOM Employee (Sr. & Middle Management)		
7	Training Program-3 IT/Comm. Technology in Smart metering	10-days	DISCOM Employee (IT/Metering Dept. Personnel)		
8	Training Program-4 AMI analytics and data applications	10-days	DISCOM Employee (Commercial/Operation Dept. Personnel)		
9	Training Program-5 SCADA, IT/OT Technologies DMS & OMS System	10-days	DISCOM Employee (Jr. Middle & Sr. Management)		
10	Power & Energy Technologies	4-weeks	Graduate Engineers		
11	Specialist Level Course on Regulatory Framework in Power Sector	2-weeks	POSOCO, RLDCs, SLDCs		
12	Business Continuity Management	1-day	Mutually agreed basis		
13	Rights of Consumers Rules, 2020 & Electricity Amendment Bill, 2021	2 -days	Mutually agreed basis		
14	Grid Modernization, Grid Planning-Role of Storage.	2- days	Mutually agreed basis		
15	Islanding and Load Shedding & GIS Technology, AIS versus GIS and Cable Termination Technology.	3- days	Mutually agreed basis		
22	Hydrogen Energy and National Hydrogen Mission	2- days	Mutually agreed basis		
16	Fuel Cell and Battery Energy Storage	2- days	18 & 19 <sup>th</sup> May, 2022		
17	IT 4.0 & Smart City	1-day	28 <sup>th</sup> April, 2022		
18	Electricity Storage and Design Analysis for Electricity grid.	5-days	Mutually agreed basis		
19	MDMS and IT Infrastructure based on Cloud Storage Technology	3-days	Mutually agreed basis		
20	Data Analytics and Artificial Intelligence with Python & Tableau.	3-days	4 <sup>th</sup> July to 6 <sup>th</sup> July, 2022		
21	Soft skill development and Management Program for DISCOMs	3-days	Mutually agreed basis		

22	Distribution Automation and Control and Secure Industrial Applications	3-days	Mutually agreed basis
23	Cyber Security Management System for IT & OT and Information Security in Power Utilities.	5-days	Mutually agreed basis
24	Machine Learning Application for Distribution System and Virtual Reality for Distribution Planning	2-days	Mutually agreed basis
25	Deviation Settlement Mechanism	2-days	Mutually agreed basis
26	Real Time Market in Power Sector	2-days	Mutually agreed basis
27	Power Trading and Power Exchange	2-days	Mutually agreed basis
28	Protection System of Hydropower Plant	5-days	Mutually agreed basis
29	Tariff regulation, calculations of Hydro Project	2-days	Mutually agreed basis
30	AutoCAD Training	3-days	Mutually agreed basis
31	Training for working with Macro based Excel workbook	3-days	Mutually agreed basis
32	E&M Auxiliaries of Hydropower Plant	5-days	Mutually agreed basis
33	RE Technologies & RE Integration	3-days	Mutually agreed basis
34	Efficiency/Performance testing of Hydropower Plant as per IEC 60140	2-days	Mutually agreed basis
35	Advanced Distribution Management System and Distributed Energy Resources Management	2-days	Mutually agreed basis
36	Design, Operation, Economic Evaluation of Floating Solar	2-days	Mutually agreed basis



Discussion with Shri R. Mohan, Executive Director, Projects Business Development & Contracts, NLCIL, Neyveli with Director & Officers of NPTI, Neyveli

NPTI	(Nothern	Region),	Badarpur
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S. No.	Name of the Programme	Duration	Dates
1	Contract Management for Power Sector.	1 week	18.04.2022 to 20.04.2022
2	Safety in power and related sectors.	1 week	09.05.2022 to 13.05.2022
3	Transformer Maintenance	1 week	13.06.2022 to 17.06.2022
4	Testing of Transformers	03 Days	04.07.2022 to 06.07.2022
5	Switchyard Equipment Maintenance	1 week	08.08.2022 to 12.08.2022
6	Switchgear Maintenance	03 Days	12.09.2022 to 14.09.2022
7	Boiler and Boiler Auxiliaries Operation	1 week	14.10.2022 to 14.10.2022
8	Labor Codes and Legislations.	03 Days	14.11.2022 to 16.11.2022
9	Transmission Line Maintenance & Introduction to Live line Maintenance Techniques	03 Days	12.12.2022 to 14.12.2022
10	Transformer Oil Testing, DGA & Furan Analysis	1 week	16.01.2023 to 20.01.2023
11	Balance of Thermal Power Plant	1 Week	13.02.2023 to 17.02.2023
12	Electrical Protection System	1 week	06.03.2023 to 10.03.2023



One day Online Program on Capacity Building (Biomass Pellets Co-firing) for TPPs officials on 27th January, 2022 by NPTI, Badarpur, New Delhi.

# NPTI (Hydro Power Training Centre), Nangal

	٦	raining	Program to be Conducted April 2022 to	March 20	023
S. No.	Month	Date	Name of Programs	Duration	Mode of Training
1	April,	18.04.22	Advanced O & M Practices in Supercritical Thermal Power Plant	01 week	Online /Offline
2	2022	27.04.22	Cyber Security in Power Sations	01 Day	Online /Offline
3		10.05.22	Hydro Turbine, Auxiliaries & Governing System	03 days	Online /Offline
4	May, 2022	17.05.22	Specialized Training program on Hydro Power Plant Engineering	01 week	Online /Offline
5		23.05.22	250 MW Hydro Simulator	01 week	Offline
6	June,	06.06.22	Best O & M Practices of Switchgear & Transformer	01 week	Online /Offline
7	2022	13.06.22	Specialized Training Program on O&M of Hydro Electric Plant	12 weeks	Online /Offline
8		15.06.22	Solar Energy & Grid Integration	02 days	Online /Offline
9	July, 2022	12.07.22	Advanced Mtc Practices of Valves & Pumps in Hydro Power Plant	03 days	Online /Offline
10	2022	25.07.22	Hydro Power Plant Operation	01 week	Online /Offline
11	A	10.08.22	Advanced O & M techniques in Hydro Power Plants	03 days	Online /Offline
12	Aug, 2022	22.08.22	Post Graduate Diploma Course in Thermal Power Plant Engineering PGDC (T)	52 weeks	Offline
13		23.08.22	Cyber Security in Power Sations	01 day	Online /Offline
14		12.09.22	Post Diploma Course in Hydro Power Plant Engineering PDC (H)	26 weeks	Offline
15	Sept,	14.09.22	Hydro Power Plant Auxiliaries	03 Days	Online /Offline
16	2022	19.09.22	Post Graduate Diploma Course in Hydro Power Plant Engineering PGDC (H)	39 weeks	Offline
17		26.09.22	250 MW Hydro Simulator	01 week	Offline
18		10.10.22	Hydro Power Plant Operation	01 week	Online /Offline
19	Oct,	11.10.22	Safety in Power Station	02 days	Online /Offline
20	2022	17.10.22	Advanced O & M Practices in Supercritical Thermal Power Plant	01 week	Online /Offline
21	Nov,	14.11.22	250 MW Hydro Simulator	01 week	Offline
22	2022	22.11.22	Advanced O & M techniques in Thermal Power Plant	03 days	Online /Offline
23	Dec,	06.12.22	Specialized Training program of Hydro Power Plant	06 weeks	Offline
24	2022	20.12.22	Hydro Generator and its excitation system	03 days	Online /Offline
25		02.01.23	250 MW Hydro Simulator	01 week	Offline
26	Jan, 2023	17.01.23	Electricity Act and Regulations	02 days	Online /Offline
27	2023	23.01.23	Hydro Power Plant Operation	03 days	Online /Offline
28		08.02.23	Solar Energy & Grid Integration	02 days	Online /Offline
29	Feb, 2023	14.02.23	Advanced O & M techniques in Hydro Power Plants	03 days	Online /Offline
30		20.02.23	Hydro Power Plant Auxiliaries	02 days	Online /Offline

31		07.03.23	Safety In power Station	02 days	Online /Offline
32	Mar, 2023	14.03.23	Best O & M Practices of Hydraulics Gates in Hydro Power Plant	02 days	Online /Offline
33		20.03.23	250 MW Hydro Simulator	01 week	Offline



← Tweet



NPTI @NPTIMoPGol •••

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Inauguration of Training Brochure of NPTI for RDSS Programme by Sh.R.K.Singh Hon'ble Cabinet Minister of Power and New Renewable Energy.



Ministry of Power and 7 others

11:57 AM · Dec 18, 2021 · Twitter Web App

Distribution Utility Meet

Tripta Thakur, DG, NPTI stated that "RDSS is one of the clear indication by the government to move towards digitalization and NPTI will help in producing skilled manpower to facilitate this move" at **#DUM2021** in session "RDSS Program by Gol for DISCOMs.

...

#### Tags - @NPTIMoPGol



4:50 pm · 18 Nov 2021 · Hootsuite Inc.

#### Revamped Distribution Sector Scheme news in media



Inaugural Pics of One Weeks Online Cyber Security Training and Certification Program 10 Jan 2022

## NPTI (Power System Training Institute), Bengaluru

Long Term Courses						
Name of Course	Name of Course Duration in Weeks Commencement Date					
PGDC in Transmission and Distribution Systems, Batch XXXII	26	May, 2022				
PGDC in Transmission and Distribution Systems, XXXIII	26	November, 2023				
PGDC in Smart Grid Technology	52	April 2022				

Short Term Courses Schedule during 2022-21				
SI. No.	Course Name	Date	Duration in days	
1	Substation Planning & Engineering	04-06 April, 2022	3	
2	Power System Communications SCADA & EMS	11-13 April, 2022	3	
3	Hands -On Training on PSSE Software	18-22 April, 2022	5	
4	Smart Grids for Smart Cities	25-28 April, 2022	4	
5	Electrical Safety and Inspection of Electrical Installations, Accidents Prevention, Recent Trends	04-06 May, 2022	3	
6	Open Access, Power Trading and Tariffs - ABT Scenario	09 – 11 May, 2022	3	
7	Distribution Transformers - Failures - Trends in O&M	17-19 May, 2022	3	
8	Power Cables and Jointing Techniques	23-25 May, 2022	3	
9	Energy Audit & Loss Reduction in T&D Systems	01-03 June, 2022	3	
10	Advanced Power System Protection	6-10 June, 2022	5	
11	Smart Grid & Smart Metering Technologies & Applications	13-15 June, 2022	3	
12	Distribution Automation	20-22 June, 2022	3	
13	Electric Vehicle: Road Map for Distribution Utilities	27-29 June, 2022	3	
14	UG Power Distribution System – O&M Practices	04-06 July, 2022	3	
15	Distribution Automation	11-13 July, 2022	3	
16	HVDC Transmission System	18-20 July, 2022	3	
17	Power Quality & Harmonics Mitigation and Reactive Power Management	25-27July, 2022	3	
18	Energy Efficiency in Electrical Utilities	02-04 Aug., 2022	3	
19	O&M, Testing of Power Transformers and HT Circuit Breakers	10-12 Aug., 2022	3	
20	Solar Power Generation Technology-On Grid & Off Grid	22-24 Aug, 2022	3	
21	Electrical & Fire Safety for Distribution Utilities	05-07 Sept., 2022	3	
22	High Voltage Testing of Power System Equipment	12-14 Sept., 2022	3	

23	SPV (Solar Photo Voltaic) Power Plant-Integration with grid and storage batteries	19-21 Sept., 2022	3
24	Digital Sub-station	27-29 Sept., 2022	3
25	Selection, O&M and Condition Monitoring of Large Electrical Motors and Generators for Industries and Power Plant Applications	11-13 Oct., 2022	3
26	Wind Power Forecasting, Site and Equipment Selection, Evacuation	18-20 Oct., 2022	3
27	Techno-Economic Analysis of RE Grid Integration, Dynamic Line rating (DLR) with Storage Options (RSOP)	02-04 Nov., 2022	3
28	Condition Monitoring, RLA & LE of Substation Equipment	14-16 Nov., 2022	3
30	Smart Meters: Integration, PMU, Asset Management in Transmission and Distribution Utilities, Distribution Automation (Data Collection and Analysis)	21-24 Nov., 2022	4
31	Distribution Reforms, Open Access for Distribution Utilities and Associated Issues	28-30 Nov., 2022	3
32	Hands -On Training on PSSE Software	05-09 Dec., 2022	5

33	Smart Transmission and Distribution Systems	12-14 Dec., 2022	3
34	Applications of Artificial Intelligence and Internet of things in Transmission and Distribution Sector things in Transmission and Distribution Sector	19-21 Dec., 2022	3
35	Smart Cities	03-06 Jan., 2023	4
36	Big Data Analytics for Power Utilities	09-11 Jan., 2023	3
37	Dynamic Line rating (DLR)with storage Options (RSOP)	17-19 Jan., 2023	3
38	Transformer and Switchgear Maintenance	06-09 Feb., 2023	4
39	Advanced Power System Protection	13-17 Feb., 203	5
40	Power Quality & Harmonics Mitigation and Reactive Power Management	06-08 March, 2023	3
41	Electrical Safety and Inspection of Electrical Installations, Accidents Prevention, Recent Trends	13-15 March, 2023	3
42	Electric Vehicle: Road Map for Distribution Utilities	20-22 March, 2023	3

SI. No.	Course Name	Date	Duration in days
1.	- Familiarization on Despatcher Training Simulator	18-29 April, 2022	2 weeks
2.		10-21 Oct., 2022	2 weeks
3.	Multifunction Simulator Lab. for 210 MW	04-15 April, 2022	2 weeks
4.		14-25 Nov., 2022	2 weeks

5.	Multifunction Simulator Lab. for 500 MW	06-17 June, 2022	2 weeks
6.		09-21 Jan., 2023	2 weeks
7.		01-12 Aug., 2022	2 weeks
8.	Multifunction Simulator Lab. for 800 MW	13-25 March, 2023	2 weeks

E	Basic/ Intermediate/ Advanced Level Training and Certification on Cyber Security					
SI. No.	Course Name	Date	Duration in days			
1.	Basic Level Training and Certification on Cyber Security (Theory and Hans-on)	To be announced	2 weeks			
2.	Basic Level Training and Certification on Cyber Security (Theory and Hans-on)	To be announced	2 weeks			
3.	Basic Level Training and Certification on Cyber Security (Theory and Hans-on)	To be announced	2 weeks			





Inaguration of Intership prog. on Power System Protection on15 Nov 2021 at PSTI, Bengaluru

04 Weeks Winter On-Line Internship Program from 17.01.2022 to 11.02.2022 by NPTI Badarpur



Shree Ganesh Puja at NPTI, Faridabad



Cultural Event at NPTI Faridabad by Ms.Kavita Dwivedi and Team (SPIC- MACAY)

### NPTI (Hot Line Training Centre), Bengaluru

SI. No	Name of Course	Period		Duration
		From	То	Weeks/days
1	117 <sup>th</sup> Live Line Maintenance Techniques (LLMT)	18.04.22	01.07.22	11 Weeks
2	52 <sup>nd</sup> One week Awareness Course for Executives in Hot Line Activities	13.06.22	17.06.22	01 Week
3	28 <sup>th</sup> Live Line Punctured Insulator Detection	04.07.22	08.07.22	01 Week
4	Four Weeks Cold Line Maintenance Techniques using LLMT for Lineman/Supervisors	11.07.22	05.08.22	04 Weeks
5.	118 <sup>th</sup> Live Line Maintenance Techniques (LLMT) using Hot Stick Method (HSM)	08.08.22	21.10.22	11 Weeks
6	53 <sup>rd</sup> One week Awareness Course for Executives in Hot Line Activities	03.10.22	07.10.22	01 Week
7.	29 <sup>th</sup> Live Line Punctured Insulator Detection	24.10.22	28.10.22	01 Week
8.	28 <sup>th</sup> Live Line Maintenance Techniques (LLMT) using Bare Hand Method (BHM)	31.10.22	02.12.22	05 Weeks
9.	119 <sup>th</sup> Live Line Maintenance Techniques (LLMT) using Hot Stick Method (HSM)	05.12.22	17.02.23	11 Weeks
10.	54 <sup>th</sup> One week Awareness Course for Executives in Hot Line Activities	30.01.23	03.02.23	01 Week
11.	Live Line Punctured Insulator Detection	20.02.23	24.02.23	01 Week
12	22 <sup>nd</sup> Switchyard Maintenance Techniques using LLMT for Lineman/Supervisors	27.02.23	24.03.23	04 Weeks

Three days training program on "Solar Power Maninenance & Installation" from 10-11-2021 to 12-11-2021 M/S Saraswathi Power & Industries

## NPTI (Southern Region), Neyveli

SI.	Nome of the Course	Duration	Pe	riod	Mode of					
No.	Name of the Course	in Days	From	То	Training Program					
I	POWER GENERATION AND ITS ANCILLARY EQUIPMENTS									
1.	Power Station Pumps-Operation, Maintenance & Performance Monitoring	03 Days	18.04.2022	20.04.2022	Offline					
2.	Vibration Analysis	03 Days	27.04.2022	29.04.2022	On-line					
3.	Thermal Power Station Operation	03 Days	09.05.2022							
4.	Best Practices in O&M of Air Compressor	02 Days	05.05.2022							
5.	Boiler Tubes Failure Analysis & Case Studies	02 Days	23.05.2022							
6.	Steam Turbine & Auxiliaries Operation	05 Days	30.05.2022		Offline					
7.	Power Transformer Maintenance& Testing	03 Days	29.06.2022	01.07.2022	Offline					
8.	Power Station - Valves, Actuators Maintenance	03 Days	15.06.2022	17.06.2022						
9.	Advanced Welding and Non- Destructive Testing (NDT) Technologies	03 Days	29.06.2022							
10.	Boiler Firing System & Equipment	03 Days	06.07.2022	08.07.2022	Offline					
11.	O&M of Coal Mills & Feeders	03 Days	11.07.2022		On-line					
12.	Condition Based Maintenance for Rotary Equipments	03 Days	20.07.2022	22.07.2022	Offline					
13.	Fans and Air Heaters Maintenance	03 Days	01.08.2022	03.08.2022	Offline					
14.	Efficiency & Performance Monitoring of TPS	03 Days	03.08.2022	05.08.2022	Offline					
15.	Vibration Analysis	03 Days	10.08.2022		Offline					
16.	Best Practices in O&M of Air Compressor	02 Days	22.08.2022	23.08.2022	Offline					
17.	Advanced Welding and Non- Destructive Testing (NDT) Technologies	03 Days	05.09.2022		Offline					
18.	Boiler and its Auxiliaries- Operation & Maintenance	03 Days	19.09.2022	21.09.2022	Offline					
19.	Large Capacity CFBC Boiler- Operation & Maintenance	03 Days	24.10.2022	26.10.2022	Offline					
20.	Generator & Auxiliaries including Excitation System- Operation & Maintenance	03 Days	02.11.2022	04.11.2022	Offline					
21.	Steam Turbine & Auxiliaries Operation & Maintenance	05 Days	07.11.2022	11.11.2022	Offline					
22.	O&M of Coal Mills & Feeders	03 Days	23.11.2022	25.11.2022	Offline					
23.	Electrostatic Precipitator - Operation & Maintenance	03 Days	30.11.2022	02.12.2022	Offline					
24.	Transformer Maintenance & Testing	03 Days	07.12.2022	09.12.2022	Offline					
25.	Fan & Air Heaters Maintenance	03 Days	14.12.2022	16.12.2022	Offline					
26.	Burner Management System/FSSS	03 Days	18.01.2023	20.01.2023	On-line					
27.	Issues Related to Supercritical Boiler Technology	02 Days	19.01.2023	20.01.2023	On-line					
28.	Gas Turbine & Combined Cycle Power Plant Operation & Maintenance	03 Days	01.02.2023	03.02.2023	On-line					
29.	Power Station Pumps-Operation, Maintenance & Performance Monitoring	03 Days	08.02.2023		Offline					
30.	Power Plant Chemistry	03 Days	22.02.2023							
31.	Boiler Tubes Failure Analysis & Case Studies	02 Days	27.02.2023	28.02.2023	Offline					
32.	Bearing Maintenance & Shaft Alignment	03 Days	08.03.2023	10 .03.2023	Offline					
II	HYDRO POWER AND RENEWABLE ENERGY SYSTEM	1								
33.	Solar PV Plant Design & Installation	02 Days	21.04.2022							
34.	Clean Energy Technologies	03 Days	16.05.2022							
35.	Floating Solar PV Technology	03 Days	08.06.2022	10.06.2022	On-line					
36.	Renewable Energy Forecasting & Renewable Energy Management Centers (REMCs) – <b>On-line Workshop</b>	03 Days	22.06.2022							
37.	Hybrid Renewable Energy Systems	03 Days	27.07.2022	29.07.2022						
38.	Solar Photovoltaic System Design & Installation	03 Days	16.08.2022	18.08.2022	Offline					
39.	Solar PV Panel Installation, inverter Testing & Maintenance	03 Days	12.09.2022	14.09.2022	Offline					

78.		03 Days		03 03 2023	On-line
	Data Sciences & Big Data Analytics with Industrial orientation (Energy & Utility)		01.03.2023		
77.	Internet of Things and Robotics – On-line Workshop	05 Days	20.03.2023	24.03.2023	On-line
76.	Block Chain Technology	02 Days		10.02.2023	Offline
75.	Cyber Security Issues in Power Sector	03 Days		03.02.2023	On-line
73.	Block Chain Technology Internet of Things for Smart Grid	02 Days 02 Days		26.01.2022	On-line
72. 73.	orientation (Energy & Utility) – On-line Webinar	03 Days	28.09.2022	30.09.2022	On-line Offline
71. 72.	Internet of Things for Smart Grid applications Data Sciences & Big Data Analytics with Industrial	02 Days		16.09.2022	Offline
70.	Block Chain Technology	02 Days		10.06.2022	Offline
69.	Internet of Things applications	03 Days		13.04.2022	
	IT, ICT, GIS & RS BIG DATA ANALYTICS AND CYBER			12.04.0000	Online
<u>68.</u>	Electrical Vehicles & Charging Infrastructure	02 Days		08.03.2023	Un-line
67.	E-Mobility & Charging Infrastructure	03 Days		30.12.2022	
66.	Battery Energy Storage & Micro Grids in India	03 Days		07.12.2022	
65.	Power Sector	02 Days		23.09.2022	
64.	Energy Storage Technologies – <b>On-line Webinar</b> Regulatory frame work & Commercial aspects of Indian	02 Days		30.08.2022	
63.	E-Mobility – Concept & Implication	02 Days		19.07.2022	
62.	Renewable Energy Interface – Issues & Challenges	02 Days		17.05.2022	
61.	Battery Energy Storage System	03 Days	06.04.2022	08.04.2022	On-line
VI	<b>GRID INTEGRATION, SMART GRID &amp; SMART CITIES,</b>	EV, AND E	ENERGY STO	ORAGE SYS	TEM
60.	Electrical Safety and Inspection of Electrical Installations, Accident. Prevention Recent Trends	02 Days	21.11.2022	22.11.2022	On-line
59.	Substation Safety Audit & Earthing- Online Webinar	01 Day	16.09.2022	16.09.2022	On-line
V	DISASTER AND SAFETY MANAGEMENT				
58.	Power Plant Auto Control	03 Days	10.10.2022	12.10.2022	On-line
57.	Control and Instrumentation in Power Station	03 Days	08.06.2022		
56.	PLC & SCADA applications in Thermal Power Plant	02 Days	26.05.2022		
IV	CONTROL AND INSTRUMENTATION ENGINEERING				
55.	Transformers	03 Days	07.02.2023	09.02.2023	Offline
54.	Electrical Protection System	03 Days	17.01.2023		
53.	Power System Studies and Load Despatch	03 Days	04.01.2023		
52.	Power Cable Jointing Technologies	03 Days	19.10.2022		Offline
51.	Power System Energy Losses	03 Days		09.09.2022	
50.	Electrical Protection System	03 Days	13.07.2022		
49.	Power System Studies and Load Despatch	03 Days		06.07.2022	
48.	Switchgear & Transformer Maintenance	02 Days		26.04.2022	
III	TRANSMISSION AND DISTRIBUTION SYSTEM				
47.	Renewable Energy Forecasting & Renewable Energy Management Centers (REMCs) – <b>On-line Workshop</b>	03 Days		24.02.2023	
46.	Solar PV Plant Design & Installation	02 Days	03.01.2023	04.01.2023	Offline
45.	Renewable Energy Integration - Issues & Challenges– On-line Webinar	02 Days	22.12.2022	23.12.2022	On-line
44.	Solar PV Technology	03 Days	12.12.2022	14.12.2022	On-line
43.	Clean Energy Technologies	05 Days	14.11.2022	18.11.2022	On-line
42.	Solar PV Technology	03 Days		04.11.2022	
41.	Management Centers (REMCs) – <b>On-line</b> Workshop**	03 Days		21.10.2022	
40.	Renewable Energy Forecasting & Renewable Energy	05 Days	20.10.2022	20.10.2022	Unine
40.	Solar PV Technology	03 Days	26 10 2022	28.10.2022	Offline

VIII	ENERGY EFFICIENCY, ENERGY AUDIT AND DEMAND SIDE MANAGEMENT							
79.	Energy Audit & Demand Side Management in Power Utilities	03 Days	05.10.2022	07.10.2022	Offline			
80.	Energy Conservation & Energy Audit in TPS	03 Days	10.01.2023	12.01.2023	Offline			
81.	Energy Conservation and Energy Audit in Power Industries	05 Days	13.03.2023	17.03.2023	On-line			
82.	Energy Audit & Demand Side Management in Power Utilities	03 Days	20.03.2023	24.03.2023	On-line			
IX	IX POWER MANAGEMENT AND MANAGEMENT DEVELOPMENT PROGRAMS							
83.	Electricity Act and Regulation	03 Days	20.04.2022	22.04.2022	On-line			
84.	Open Access, Power Trading and Tariff-ABT Scenario	03 Days	11.05.2022	13.05.2022	On-line			
85.	Regulatory Issues in Power Sector	05 Days	04.07.2022	08.07.2022	On-line			
SI.		Duration	Pe	Mode of				
No.	Name of the Course	in Days	From	То	Training Program			
86.	Contract Management	02 Days	25.08.2022	26.08.2022	Offline			
87.	Power System Energy Losses	03 Days	31.08.2022	02.09.2022	Offline			
88.	Management of Renewable Energy: Finance and Economics of Renewable Energy	02 Weeks	14.11.2022	25.11.2022	On-line			
89.	Regulatory Framework in Power Sector-On-line		21 12 2022	23.12.2022	On-line			
03.	Webinar	03 Days	21.12.2022	20.12.2022				
<b>X</b>		US Days	21.12.2022	20.12.2022				
	Webinar         ENVIRONMENT MANAGEMENT         Air Pollution monitoring & Control Technologies	03 Days 02 Days		05.04.2022	On-line			
x	Webinar ENVIRONMENT MANAGEMENT			05.04.2022				
<b>X</b> 90.	Webinar           ENVIRONMENT MANAGEMENT           Air Pollution monitoring & Control Technologies           Environmental Impact Assessment and Environment	02 Days	04.04.2022	05.04.2022 01.07.2022	On-line			

#### \*\* New Training Programs Proposed By NPTI(SR), Neyveli

1.COURSE TITLE	:	Renewable Energy (RE) Forecasting & Renewable Energy Management Centers(REMCs) – Online Mode
OBJECTIVE	:	To familiarize power system operation engineers and Grid Operators regarding function of REMC's and Renewable Energy (RE) Forecasting Techniques
PROGRAM PROFILE	:	<ul> <li>✓ Overview of Forecasting Tools</li> <li>✓ Wind Generation Forecasting -Ramp Forecasting and Evaluation of Wind Forecasting Tools</li> <li>✓ Solar Generation Forecasting - Local Data, Cloud Motion Cameras and Evaluation of Solar Forecasting Tools</li> <li>✓ REMC - Function of REMC, Logistics (Hardware &amp; Software Configurations), REC and Coordination with LDCs</li> <li>✓ Scheduling and Deviation Settlement Mechanism of Wind and Solar RE at Inter-state &amp; Intra-state level and Ancillary Services</li> <li>✓ RE Grid Integration - Frequency Control, Voltage Control, Planning Issues, Challenges</li> </ul>
ELIGIBILITY OF PARTICIPANTS	:	Engineers From Power Utilities, Load Despatch Center And Research Scholars/Academicians
DURATION	:	03 Days
2.COURSE TITLE	:	Substation Safety Audit & Earthing– Online Mode
OBJECTIVE	:	To familiarize power system engineers with Design, Installation and maintenance of an effective grounding system in a AIS or GIS of very high importance.
PROGRAM PROFILE	:	<ul> <li>Measurement of Step/Touch Potential, Earth Electrode resistance Measurement, Riser Integrity Test, Grid Integrity Test, Effect of Corrosion</li> </ul>

		<ul> <li>etc.,</li> <li>✓ Current division Method for Riser Integrity Test that can pin point open and defective risers in a substation</li> <li>✓ Transient response analysis of Grid involving transient ground potential rise(TGPR) and very fast transient over voltage (VFTO) studies</li> </ul>
ELIGIBILITY OF PARTICIPANTS	:	Professionals working in Industries, utilities, Faculties, students
DURATION	:	01 Day



Two-day On-site training program on "Turbine RLA, Governing & Retrofitting" for Engineers of Odisha Power Generation Corporation from 25-26 November 2021 at 660 MW IB Thermal, Jharsuguda (Odisha) was organized by NPTI Faridabad



Two-Week upskilling program funded by GIZ under project 'IRISE' (Indian Rooftop PV Installers Skilling & Employment) on Solar PV Port was conducted from 22/11/21 to 03/12/21.

## NPTI, Alappuzha

SI. No.	Program Name	Date of Commencement	Duration
1	Regulatory issues in Power Sector	04-04-22	01 Week
2	Industrial Plant Safety	20-04-22	03 Days
3	Entrepreneurship Development Program on Solar Roof Top	25-04-22	03 Days
4	O&M Practices of Supercritical Powerplant	02-05-22	01 Week
5	Operation and Maintenance of Transmission line and Substation	09-05-22	01 Week
6	Emerging Technology in Reducing AT&C Losses	23-05-22	03 Days
7	Electrical Safety in Power Utilities	29-05-22	03 Days
8	Advance O&M Technique in Hydro Power Plant	06-06-22	03 Days
9	Energy Audit and Loss Reduction in T&D system	20-06-22	03 Days
10	Electricity Act and Regulation	04-07-22	03 Days
11	Environmental issues in Power sectors	11-07-22	03 Days
12	Specialised Training in Renewable energy and Grid interface	18-07-22	03 Days
13	Power System Study and Load Dispatch	01-08-22	03 Days
14	Operation and Maintenance of (O&M) of HT/LT Switch gear	22-08-22	01 Week
15	Operation and Maintenance of (O&M) of Transmission Lines & Sub-Station	29-08-22	03 Days
16	Data Science and Big Data Analytics	05-09-22	03 Days
17	Boiler Efficiency	12-09-22	03 Days
18	Smart Transmission & Distribution System	19-09-22	01 Week
19	Battery Energy Storage & Microgrids	10-10-22	03 Days
20	Solar Photovoltaic Power Plant Integration with Grid and Storage Batteries	17-10-22	03 Days
21	Electrical Safety in Power Utilities	31-10-22	03 Days
22	Industrial Safety	07-11-22	05 Days
23	Smart Grid and Smart Metering Technologies and its applications	21-11-22	03 Days
24	E-Mobility Mission of India: Concepts & Implications	28-11-22	02 Days
25	Leadership Skills and Stress Management	12-12-22	03 Days
26	Floating Solar design installation & Maintenance	19-12-22	03 Days
27	Block Chain Technology	09-01-23	03 Days
28	E.V Charging Infrastructure	16-01-23	02 Days
29	Battery Energy Storage & Microgrids in India	23-01-23	03 Days
30	PV and Home Automation	06-02-23	05 Days
31	Steam Turbine Governing	13-02-23	03 Days
32	Cyber Security in Power Sectors	27-02-23	03 Days
33	Hybrid Renewable Energy System	06-03-23	03 Days
34	Solar Power Generation Technology On-Grid and Off- Grid	20-03-23	05 Days

#### Simulator Training Programme:-

S. No.	Name of Course	Duration	Date of Commencement
1	210 MW Fossil Fuel Power Plant	02 Weeks	Mutually agreed basis
2	500 MW Fossil Fuel Power Plant	02 Weeks	Mutually agreed basis
3	430 MW Combined Cycle Gas Turbine Power Plant	02 Weeks	Mutually agreed basis Mutually agreed basis
4	250 MW Hydro Simulator Training	01 Week	Mutually agreed basis
5	Dispatcher Training Simulator (DTS)	02 Weeks	Mutually agreed basis
6	800 MW/660 MW (Emulated) Super Critical Thermal Power Plant Simulator Training	02 Weeks	Mutually agreed basis
7	Multifunctional Simulator Configurat	ions	
i	210 MW-Thermal Power Plant	02 Weeks	4/4/2022
		02 Weeks	7/4/2022
		02 Weeks	10/3/2022
		02 Weeks	1/2/2023
		01 Week	2/13/2023
ii	250 MW-Hydro Power Plant	01 Week	5/2/2022
		02 Weeks	9/5/2022
		02 Weeks	09-01-203
iii	500 MW-Thermal Power Plant	02 Weeks	4/11/2022
		02 Weeks	6/13/2022
		02 Weeks	8/8/2022
		02 Weeks	12/26/2022
		02 Weeks	2/6/2023
		01 Week	3/20/2023
iv	550 MW-Combined Cycle Power Plant	02 Weeks	Not Available
V	800 MW/660 MW (Emulated) Super Critical	02 Weeks	4/25/2022
	Thermal Power Plant Simulator Training	02 Weeks	7/18/2022
		02 Weeks	10/10/2022
		02 Weeks	1/2/2023
		01 Week	2/27/2023
vi	SCADA & Smart Grid Simulator	01 Week	5/30/2022
		02Weeks	8/22/2022
		01 Week	3/6/2023

## Short Term Course

S. No.	Name of Course	Duration	Date of Commencement
	I. Power Generation and its ancillary equipme	ents	
1	An Overview of Supercritical Technology	03 Days	Mutually agreed basis
2	Advanced O&M Practices of Supercritical Thermal Power Plant	01 Week	5/2/2022
3	Issues Related to Supercritical Technology	02 Days	Mutually agreed basis
4	Flexible Operation of Thermal Power Plants in India	03 Days	Mutually agreed basis
5	Thermal Power Station Operation	01 Week	Mutually agreed basis
6	Boiler Operation/ Boiler & Its AuxiliariesOperation	01 Week	Mutually agreed basis
7	Boiler Firing System & Equipments	03 Days	Mutually agreed basis
8	Boiler Efficiency	02 Days	9/12/2022
9	Renovation & Modernization of Thermal Power Plant/Station	01 Week	Mutually agreed basis
10	Steam Turbine & Its Aux. Operation	01 Week	Mutually agreed basis
11	Steam Turbine Governing	03 Days	2/13/2022
12	Generator & Auxilliaries Including Excitation System	01 Week	Mutually agreed basis
13	Emerging Trends in Excitation System & AVR	03 Days	Mutually agreed basis
14	Thermal Power Plant Efficiency & Performance Monitoring	03 Days	Mutually agreed basis
15	Large Capacity Cfbc Boilers	03 Days	Mutually agreed basis
		03 Days	Mutually agreed basis
16	Regenerative Feed Heating System	01 Week	Mutually agreed basis
17	Fans & Air Heaters	03 Days	Mutually agreed basis
18	Electrostatic Precipitator	03 Days	Mutually agreed basis
19	Valves and Pumps in Power Plant Engineering	03 Days	Mutually agreed basis
20	Operation & Maintenance (O&M) of Coal Mills & Feeders	03 Days	Mutually agreed basis
21	Vibrational Analysis	03 Days	Mutually agreed basis
22	Trouble Shooting of Steam Turbine	03 Days	Mutually agreed basis
		03 Days	Mutually agreed basis

23	Reliability Centered Maintenance of Rotary Equipments	01 Week	Mutually agreed basis
24	Non-Destructive Testing & Welding Defects	01 Week	Mutually agreed basis
25	Electrical Motor for Power Plant & its Maintenance	03 Days	Mutually agreed basis
26	Fan & Air Heaters Maintenance	01 Week	Mutually agreed basis
27	Bearing Maintenance and Shaft Alignment	01 Week	Mutually agreed basis
28	Pump Maintenance	03 Days	Mutually agreed basis
29	Selection, O&M and Condition Monitoring of Large Electrical Motors and Generators for Industries and Power Plant Applications	03 Days	Mutually agreed basis
30	Condition Based Maintenance Aspect of Electrical Equipment's	03 Days	Mutually agreed basis
31	Valve and Pump Maintenance	01 Week	Mutually agreed basis
32	Pumps Operation, Maintenance and Performance Monitoring	03 Days	Mutually agreed basis
33	Valve Actuators Maintenance	03 Days	Mutually agreed basis
34	Valve Maintenance	03 Days	Mutually agreed basis
35	Boiler Tube Failure and Case Studies	01 Week	Mutually agreed basis
36	Welding Practices	01 Week	Mutually agreed basis
37	Advanced Welding and Testing Technologies	03 Days	Mutually agreed basis
38	Condition Based Maintenance for Rotary Equipment	03 Days	Mutually agreed basis
39	Power Plant Chemistry for Operation Engineers	01 Week	Mutually agreed basis
40	Insulation Audit of Power Plants & Power Industries	01 Days	Mutually agreed basis
41	Best Practices in O&M of Air Compressor	02 Days	Mutually agreed basis
42	Super Critical Power Plants – Innovations & Case Studies	03 Days	Mutually agreed basis
	II. Hydro Power and Renewable Energy Syste	ems	
43	Small, Mini and Micro Hydro Power Generation	03 Days	Mutually agreed basis
44	Hydro Turbines, Governing & its Protection Systems	03 Days	Mutually agreed basis
45	Hydro Generator & Its Excitation Systems	03 Days	Mutually agreed basis
46	Valves & Pumps in Hydro Power Plants	03 Days	Mutually agreed basis

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47	Auxiliaries in Hydro Power Plants	03 Days	Mutually agreed basis
48	Hydro Power Plant Operation	01 Week	Mutually agreed basis
49	Specialized Training Program on Hydro Power Plant Engineering	03 Weeks	Mutually agreed basis
50	Solar power technologies	03 Days	Mutually agreed basis
51	Entrepreneurship Development Program on Solar Pv Rooftop	01 Week	4/24/2022
52	Solar PV (Photovoltaic) System Design and Installation	01 Week	Mutually agreed basis
53	Solar Power Generation Technology - On Grid & Off Grid	02 Days	3/20/2023
54	Solar PV Panel - Installation, Maintenance and Testing	01 Week	Mutually agreed basis
55	Hybrid Renewable Energy Systems (HRES)	02 Days	3/6/2022
56	Condition monitoring of Hydro Turbine Generator Set	03 Days	Mutually agreed basis
57	Capability Curve and Reactive Power Control of Hydro Generators	03 Days	Mutually agreed basis
58	Control and Instrumentation in Hydro Power Plant	03 Days	Mutually agreed basis
59	Hydrology Studies in Hydro Power Plant	03 Days	Mutually agreed basis
60	Tunnel and Tunneling Concept in Hydropower Project	03 Days	Mutually agreed basis
61	Major Civil Structure and its Maintenance in Hydropower Plant	03 Days	Mutually agreed basis
62	An Overview of Solar Thermal Technology	03 Days	Mutually agreed basis
63	Solar Photovolltaic Power Plant Integration with Grid and Storage Batteries	03 Days	Mutually agreed basis
64	Advance O&M techniques in Hydro Power Plants	03 Days	6/6/2022
			Mutually agreed basis
			Mutually agreed basis
65	Best O&M Practices of Hydraulic Gates in Hydro Electric Plant	02 Days	Mutually agreed basis
66	Green Energy for Clean Environment/Green Energy Technologies	01 Day	Mutually agreed basis
67	Development of Floating Solar PV System (FSPV) in India	01 Day	12/19/2022
68	Waste to EnergyTechnology: Green Energy Development	02 Days	Mutually agreed basis
69	Skill Development Program on Renewable Energy	01 Weeks	Mutually agreed basis

	III. Transmission and Distribution System		
70	Power System Studies	03 Days	Mutually agreed basis
71	Power System Studies & Load Despatch	03 Days	Mutually agreed basis
72	Flexible Ac Transmission System (FACTS)	01 Week	Mutually agreed basis
73	HVDC Transmission Systems	03 Days	Mutually agreed basis
74	Operation & Maintenance (O&M) of Transmission Lines & Sub-Station	01 Week	8/29/2022
75	Operation & Maintenance (O&M) of HT/LT Switchgear	01 Week	8/22/2022
76	High Voltage Testing of Power System Equipment	03 Days	Mutually agreed basis
77	Operation & Maintenance (O&M) HVDC Transmission Systems	01 Week	Mutually agreed basis
78	Power System Energy Losses	03 Days	Mutually agreed basis
79	Project Management of Ehv Lines & Towers including Sub - Station	01 Week	Mutually agreed basis
80	Distribution Engineering	01 Week	Mutually agreed basis
81	Distribution Automation	03 Days	Mutually agreed basis
82	Transformers	03 Days	Mutually agreed basis
83	Condition Monitoring Residual Life Assessment (RLA) & LE of Substation Equipment	03 Days	Mutually agreed basis
84	Substation Planning & Engineering	03 Days	Mutually agreed basis
85	Power System Protection	03 Days	Mutually agreed basis
86	Advanced Power System Protection	01 Week	Mutually agreed basis
87	Electrical Protection System	01 Week	Mutually agreed basis
88	Relay Maintenance	03 Days	Mutually agreed basis
89	Electrical Protection System - Numerical Relay	02 Days	Mutually agreed basis
90	Protection Philosophy, Interlock and Relays Integration	02 Days	Mutually agreed basis
91	Operation & Maintenance (O&M) of Transformers and Circuit Breakers	01 Week	Mutually agreed basis
92	Operation & Maintenance (O&M) of Distribution System	01 Week	Mutually agreed basis

93	Operation & Maintenance of EHV Sub-Station	02 Weeks	Mutually agreed basis
94	Transmission & Distribution Equipment Maintenance	01 Week	Mutually agreed basis
95	Distribution Transformers Failure - Trends in O&M	03 Days	Mutually agreed basis
96	Operation & Maintenance (O&M) of Transformer	01 Week	Mutually agreed basis
97	Switchgear Maintenance	02 Days	Mutually agreed basis
98	Transformer Maintenance	03 Days	Mutually agreed basis
99	Best Practices in Operation & Maintenance (o&m) of Distribution Transformers Leading to Zero Breakdown	03 Days	Mutually agreed basis
100	Operation and Maintenance (O&M) of Sub- Station	01 Week	Mutually agreed basis
101	O&M, Testing of Power Transformers and HT Circuit Breakers	03 Days	Mutually agreed basis
102	Switchgear and Transformer Maintenance	01 Week	Mutually agreed basis
103	Power Quality, Harmonics Mitigation and Reactive Power Management	03 Days	Mutually agreed basis
104	Power Quality Measurement	03 Days	Mutually agreed basis
105	Emerging Technologies in Reducing at&c losses	03 Days	Mutually agreed basis
106	Distribution Network Planning for UG Cable Systems	03 Days	Mutually agreed basis
107	Power Cables and Jointing Techniques	03 Days	Mutually agreed basis
108	Distribution Metering	01 Week	Mutually agreed basis
109	Transmission Line Maintenance and Introduction to Live Line Maintenance Techniques	01 Week	Mutually agreed basis
110	Hands - On Training on Power System for Engineering (PSSE)	01 Week	Mutually agreed basis
111	Operation and Maintenance (O & M), Testing of Power Transformers	03 Days	Mutually agreed basis
112	Online Internship Training Program on Power Transmission, Distribution & Generation	04 Weeks	Mutually agreed basis
113	Best Practices in Distribution Operation & Management	01 Week	Mutually agreed basis
114	Best O&M practices of Switchgear and Transformers	01 Weak	Mutually agreed basis
	IV. Hot Line Training		
115	Awareness Programme For Executives in Hot Line Activities	01 week	Mutually agreed basis

116	Switchyard Maintenance Techniques using Llmt for Linemen/ Supervisors	04 week	Mutually agreed basis
117	Familiarization Program on Cold Lines	04 week	Mutually agreed basis
118	Live Line Punctured Insulator Detection (PID) on EHV Lines	01 week	Mutually agreed basis
119	Live Line Insulator Washing Techniques on EHV Switchyard/Lines at Onside	04 Days	Mutually agreed basis
120	Power Plant Instrumentation	03 Days	Mutually agreed basis
121	Control & Instrumentation (C&I) in Power Station (For Operation Engineers)	03 Days	Mutually agreed basis
122	Control & Instrumentation in Power Station	01 Week	Mutually agreed basis
123	Data Acquisition & Distributed Digital Control System in Thermal Power Station	03 Days	Mutually agreed basis
124	Power Plant Auto Control	03 Days	Mutually agreed basis
125	Power System Communication Scada & Ems	03 Days	Mutually agreed basis
126	Intelligent Load Management System	02 Days	Mutually agreed basis
127	Vibration Diagnostics and Fault Analysis	03 Days	Mutually agreed basis
128	PLC & SCADA in Thermal Power Plant	02 Days	Mutually agreed basis
129	Burner Management System/ Fsss	03 Days	Mutually agreed basis
	VI. Disaster and Safety Management		
130	Fire Prevention, Protection & Safety	03 Days	Mutually agreed basis
131	Disaster Management, Electrical Safety Procedures and Accident Prevention	03 Days	Mutually agreed basis
132	Electrical Safety and Inspection of Electrical Installations, Accident, Prevention Recent Trends	03 Days	Mutually agreed basis
		01 Week	Mutually agreed basis
133	Safety in Power Station	02 Days	Mutually agreed basis Mutually agreed basis
134	Operational Safety	02 Days	Mutually agreed basis
135	Electrical & Fire safety for Distribution Utilities	03 Days	Mutually agreed basis

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	basis
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	Autually agreed
	Autually agreed
Vii. Grid Integration, Smart Grid & Smart Cities, EV and Energy Storage System	
	Autually agreed
141 spv power plant - integration with grid and 03 Days N	Autually agreed
142 Smart Grids and Renewable Energy Integration 01 Day N	/lutually agreed
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150 E-Mobility Mission of India: Concepts & 02 Days 1 Implications	1/28/2022
151     E-Mobility & Charging Infrastructure     03 Days     1/	/16/2023
	Autually agreed
153         Battery Energy Storage & Micro Grids in India         02 Days         10	0/10/2022
154RenewableEnergyandGridInterface02 Days7/Technology & Regulatory Framework	7/18/2022
	Autually agreed basis
156Smart Transmission & Distribution System01 Week1	1/21/2022

VII	I. IT, ICT, GIS & RS, Big Data Analytics and Cybe	r Security	
157	IT General for Utility Engineers	01 Day	Mutually agreed basis
158	Cyber Security in Power Sector	01 Day	Mutually agreed basis
		03 Days	2/27/2023
159	Smart Grid Technologies, Internet of Things and Cyber Security	02 Days	11/21/2022
160	Block Chain Technology.	02 Days	2/9/2023
161	Internet of Things for Smart Grid Applications.	02 Days	Mutually agreed basis
162	GIS and Remote Sensing Application in Hydropower Project	03 Days	Mutually agreed basis
163	Internet of Things for Robotics: On-Line Webinar	05 Days	Mutually agreed basis
164	Data Science & Big Data Analysis with industrial orientation (Energy & Utility)	03 Days	Mutually agreed basis
165	Cyber Security Issues in Smart Grid System – Online - Webinar	02 Days	Mutually agreed basis
166	Internet of Things for Smart Grid – Online - Workshop	02 Days	Mutually agreed basis
167	Data Sciences & Big Data Analytics	03 Days	9/5/2023
	nergy Efficiency, Energy Audit and Demand Side		
168	Energy Efficiency Management in Power System	03 Days	Mutually agreed basis
169	Energy Audit and Loss Reduction in T&D Systems	02 Days	Mutually agreed basis
170	Energy Efficiency in Electrical Utilities	03 Days	Mutually agreed basis
171	Energy Conservation and Energy Audit (For Generation Sector)	03 Days	Mutually agreed basis
172	Energy Audit & Demand Side Management in Power Utilities	03 Days	6/20/2022
173	Big Data Analytics & Data Science Training covering descriptive, prescriptive & predictive analytics hands-on case studies with Industrial orientation (Energy & Utility)	01 Week	Mutually agreed basis
174	Energy Conservation and Energy Audit in Power Utilities	05 Days	Mutually agreed basis
175	Accelerating EnergyEfficiency in India: Initiatives & Opportunities	02 Days	Mutually agreed basis
176	Efficient Energy Management	01 Day	Mutually agreed basis
X. F	Power Management and Management Developmen	nt Programs	
177	Regulatory Framework in Power Sector	02 Days	Mutually agreed basis

178	Open Access, Power Trading and Tariffs - abt Scenario	03 Days	Mutually agreed basis
179	Management of Renewable Energy (Solar Energy in Particular); Finance and Economics of Renewable Energy	02 Weeks	Mutually agreed basis
180	Finance for Non-Finance Executives	02 Days	Mutually agreed basis
181	Contract Management	02 Days	Mutually agreed basis
182	Behavioral Science	02 Days	Mutually agreed basis
183	Maintenance Planning & Cost Control	03 Days	Mutually agreed basis
184	Electricity Act and Regulation	03 Days	7/4/2022
185	Government e-Marketplace (GeM) and General Financial Rules (GFR) 2017	01 Week	Mutually agreed basis
186	Government e-Marketplace (GeM) for Sellers & Service Providers	02 Days	Mutually agreed basis
187	Procurement Procedures & Contracting	03 Days	Mutually agreed basis
188	Regulatory Issues in Power Sector	05 Days	4/4/2022
189	Leadership Skills and Stress Management	02 Days	Mutually agreed basis
190	Human Resource Development Program for Finance Officer/ Manager	01 Week	Mutually agreed basis
	XI. ENVIRONMENTAL MANAGEMENT		
191	Environmental Issues in Thermal Power Stations and Fgd Technology	02 Days	7/11/2022
192	Environmental Pollution & Pollution Control Related to Power Plants Engineering	01 Week	Mutually agreed basis
193	Air Pollution Monitoring & Control Technologies	02 Days	Mutually agreed basis
194	Environmental Impact Assessment and Environment Management Plan	03 Days	Mutually agreed basis
XII. O	THER TRAINING PROGRAMS AS PER THE REQU CLIENT ON MUTUALLY AGREED BASIS	IREMENT OF	
195	Maintenance & Protection of Transformers	02 Days	Mutually agreed basis
196	Emergency Operation of TPS and Power Plant Safety	02 Days	Mutually agreed basis
197	Zero Accident Mindset to Protect Personnel Environment and Equipment	02 Days	Mutually agreed basis
198	Potential Hazards in Power Plant	02 Days	11/7/2022
199	Safe Handling Procedures in	02 Days	Mutually agreed
	Mechanical/Electrical (Rotary and Static)	02 Days	basis
200	Fire Hazards in Power Plant	02 Days	Mutually agreed basis

#### Medium Term Course

S. No.	Name of Course	Duration	Date of Commencement
1	3 Months Course on "Design, Erection and Commissioning of Solar Power Plants"	3 Months	Mutually agreed basis
2	3 Months Course on 'Distribution Substation Management & Optimal Utilization of Components'	3 Months	Mutually agreed basis
3	Live Line Maintenance Techniques (Llmt), Using Hot Stick Method (Hsm)	11 Weeks	Mutually agreed basis
4	Live Line Maintenance Techniques (Llmt) using Bare Hand Method (Bhm) on 400kvLines	05 Weeks	Mutually agreed basis
5	Post Graduate Certificate Course (PGCC) in Power Plant Engineering	3 Months	Mutually agreed basis
6	Post Graduate Certificate Course in E-Mobility and Smart Utilities	4 Months	Mutually agreed basis
7	Certificate Course for Hydro Power Plant Engineers and Supervisors	12 Weeks	Mutually agreed basis
8	Specialized Training on O&M of Hydro Power Plant	12 Weeks	Mutually agreed basis
		06 Weeks	Mutually agreed basis
9	Distribution Engineering	06 Weeks	Mutually agreed basis
10	Control & Instrumentation for Supervisors / Technicians	06 Weeks	Mutually agreed basis
11	Training Programfor Supervisor/Managerial Person Deployed in Power Industry	06 Weeks	Mutually agreed basis
12	New and Renewable Sources and Grid Integration in India	06 Weeks	Mutually agreed basis
		1.5 Months	Mutually agreed basis
13	Executive Development Program for the Supervisory Staff Working in Finance & Accounts Department	1.5 Months	Mutually agreed basis
14	3 Month Skill Development Program on "Thermal Power Plant Operation"	12 Weeks	Mutually agreed basis
15	MNRE Sponsored Solar PV Installer "Suryamitra" for Diploma/ITI Holder	12 Weeks	Mutually agreed basis

## NPTI (Eastern Region), Durgapur

### A. LIST OF LONG-TERM TRAINING PROGRAMS (26-52 Weeks)

SI No	Name of The Program	Duration	Dates	Mode of Training Program Online / Offline / Both
1.	Post Graduate Diploma Course in Power Plant Engineering	52 Weeks	August 2022	Offline
2.	Graduate Engineering Course in Power Plant Engineering	52 Weeks	September 2022	Offline
3.	Post Graduate Diploma Course in Transmission & Distribution System	26 Weeks	November 2022	Offline
4.	Post-Diploma Course in Power Plant Engineering	52 Weeks	August 2022	Offline

## B. MEDIUM-TERM COURSES (5-16 Weeks)

SI No.	Name of The Program	Duration	Dates	Mode of Training Program Online / Offline / Both
1.	MNRE sponsored Solar PV Installer "Suryamitra" for Diploma/ITI Holder	12 Weeks	April-June 2022 July-September 2022 October-December 2022 January-March 2023	Offline
2.	"Design, Erection and Commissioning of Solar Power Plants" for Diploma and Graduate Engineers	12 Weeks	June 2022	Offline
3.	Skill Development Program on Thermal Power Plant Operation" for B.Sc / Diploma Engineers.	12 Weeks	July 2022	Offline/Online
4.	DDU-GKY (Ministry of Rural Development, Govt. of India) a) Solar PV Installer-Suryamitra b) Asstt. Technicians -Street Light c) Linemen Distribution d) Asstt. Welder (Metal Arc)	16 Weeks	Start date: 10-02- 2022 (714 Trainees to be trained in 2 years)	Offline

#### C. SHORT TERMS COURSE (1 Day - 4 Weeks)

SI No	Name of The Program	Duration	Dates	Mode Online / Offline
I.	THERMAL POWER PLANT			
1	Turbo Generator Excitation System & AVR	2 Days	May 05-06, 2022	Offline
2	Recent Advancement in Turbo Generator Protection for large Power Plants	2 Days	May 17-18, 2022	Offline/Online

	Conventional & Flexible operation of		June 06-10,	
3	Thermal Power Plants.	2 Days	2022	Offline/Online
4	SPM, SoX & NoX control Techniques in Thermal Power Plant	2 Days	June 16-17, 2022	Offline/Online
5	Recent Trends in Substation Automation	3 Days	June 28-30, 2022	Offline
6	Power Plant Chemistry for Engineers	3 Days	July 04-06, 2022	Offline
7	Steam Turbine Governing	3 Days	July 11-13, 2022	Offline
8	Boiler Efficiency & Performance Monitoring	2 Days	July 18-19, 2022	Offline
9	Boiler Tube Failure and Case Studies	3 Days	July 25-27, 2022	Offline
10	Thermal Power Plant Efficiency & Performance Monitoring	3 Days	Aug 03-05, 2022	Offline/Online
11	Generator Auxiliaries Including Excitation System	2 Days	Aug 25-26, 2022	Offline
12	Advancements in Welding & NDT	3 Days	Aug 29-31, 2022	Offline
13	Trouble Shooting of Steam Turbine	2 Days	Sep 05-07, 2022	Offline
14	Boiler & Its Auxiliaries Operation	3 Days	Sep 19-21, 2022	Offline
15	Industrial Plant Safety	2 Days	Sep 22-23, 2022	Offline
16	Power Plant Control & Instrumentation	3 Days	Sep 26-28, 2022	Offline
17	Best O&M practices for Gas Turbine	3 Days	Oct 17-19, 2022	Offline
18	Condition Based Maintenance aspects of Turbo Generator	2 Days	Nov 03-04, 2022	Offline
19	Integration of Renewable energy through 24 hrs. Bidding.	2 Days	Nov 10-11, 2022	Offline/Online
20	Vibration Diagnostics and Fault Analysis	3 Days	Nov 14-16, 2022	Offline
21	Operation of Steam Turbine &its Auxiliaries	3 Days	Nov 21- 23, 2022	Offline
22	Environmental Issues in Thermal Power Stations and FGD Technology	2 Days	Dec 01-02, 2022	Offline
23	Emergency Handling of Thermal Power Plant	2 Days	Dec 08-09, 2022	Offline
24	Regulatory Framework with Amendment in Electricity bill and AGC	2 Days	Jan 09- 10, 2023	Offline/Online
25	Regulation, Power Purchase / Sales & ABT	2 Days	Jan 16-17, 2023	Offline/Online
26	Flexible Operation of Thermal Power Plants	2 Days	Feb 6- 7, 2023	Offline
27	Turbine RLA, Governing & Retrofitting	2 Days	Feb 13-14, 2023	Offline
28	Condition Based Maintenance of Rotary Equipment's	3 Days	Feb 20-22, 2023	Offline
II	HYDRO P	OWER PL	ANT	
1	Hydro Generator Excitation System & AVR	2 Days	May 04-05, 2022	Offline
2	Recent Advancement in Hydro Generator Protection for Power Plants	2 Days	May 17-18, 2022	Offline/Online
3	Condition Monitoring & Control for Hydro	2 Days	June 13-14,	Offline/Online

	Power Plant		2022	
4	Advancements in Welding & NDT	3 Days	Aug 29-31, 2022	Offline
5	Renovation, Modernization & Uprating of Hydro Power Plant	3 Days	Sep 12-14, 2022	Offline/Online
6	Industrial Plant Safety	2 Days	Sep 22-23, 2022	Offline
7	Power Plant Control & Instrumentation	3 Days	Sep 26-28, 2022	Offline
8	Advance Automation in Hydro Power Plant	2 Days	Jan 23-24, 2023	Offline/Online
9	Dam Safety & Risk Mitigation Techniques in Hydro Power / Irrigation Projects"	2 Days	Feb 02-03, 2023	Offline/Online
10	Hydrological Studies in Hydro Power Projects with special reference to Remote sensing and GIS	2 Days	Mar 06-07, 2023	Offline/Online
	TRANSMISSIO	N & DISTR	IBUTION	
1	Latest Trends in 33/11 KV Distribution & its Protection System	2 Days	Feb 27-28, 2023	Offline
2	Switchgear and Transformer Maintenance	5 Days	April 18-22 2022	Offline
3	Emerging Technologies in Reducing AT&C Losses	3 Days	May 11-13, 2022	Offline
4	Electrical Protection Schemes in Power Plants	5 Days	May 23-27, 2022	Offline/Online
5	Recent Trends in Substation Automation	3 Days	June 28-30, 2022	Offline/Online
6	Latest Trend in Smart Grid, ICT and Power System	2 Days	Sep 15-16, 2022	Offline
7	Industrial Plant Safety	2 Days	Sep 22-23, 2022	Offline
8	OFC Cable laying Technology & Practices	2 Days	Nov 29- 30, 2022	Offline
IV	RENEWA	BLE ENER	RGY	
1	Renewable Energy & Grid Integration	2 Days	Aug 22-23, 2022	Offline/Online
2	EV & Charging Infrastructure	2 Days	Sep 08-09, 2022	Offline/Online
3	Fundamental of Battery Storage System	2 Days	Dec 15-16, 2022	Offline/Online
V	0	THERS		
1	Contract Management	2 Days	May 09-10, 2022	Offline
2	Echo Friendly power solutions with remote sensing and GIS	2 Days	July 21-22, 2022	Offline/Online
3	Cyber Security Audit- Tools, Techniques, Procedure & Threats.	2 Days	Sep 01-02, 2022	Offline/Online
4	Environmental Issues in Thermal Power Stations and FGD Technology	2 Days	Dec 01-02, 2022	Offline
5	Regulatory Framework with Amendment in Electricity bill and AGC	2 Days	Jan 09- 10, 2023	Offline/Online
6	Regulation, Power Purchase / Sales & ABT	2 Days	Jan 16-17, 2023	Offline/Online
7	Behavioral Science	2 Days	Jan 30-	Offline

			31,2023	
VI	CUSTOMIZED		·	•
1	Maintenance & Protection of Transformers	2 Days		Offline / Online
2	Emergency Operation of TPS and Power Plant Safety	2 Days	To be	Offline / Online
3	Zero Accident Mindset to Protect Personnel Environment and Equipment	2 Days	decided in consultation	Offline / Online
4	Potential Hazards in Thermal Power Plant	2 Days	with customer	Offline / Online
5	Fire Hazards in Power Plant	2 Days	organization	Offline / Online
6	Safe Handling Procedures in Mechanical / Electrical (Rotary and Static)	2 Days		Offline / Online
VII	REVAMPED DISTRIBUTION SECTOR SCHEME			
1	Introduction of AMI and role of AMI in reducing AT&C losses	3 Days	To be conducted in	Offline
2	AMI System Design and program Management	3 Days	for employees of DISCOMs in	Offline
3	IT / Comm. Technology in Smart Metering	10 Days	the state of West Bengal, Bihar, Jharkhand, A&N, Sikkim, Tripura & U.P. (PuVVNL)	Offline
4	AMI Data Analytics and Data Applications	10 Days		Offline
5	SCADA, IT/OT Technologies, and DMS & OMS System	10 Days		Offline

## D. SIMULATOR TRAINING PROGRAMS

SI No	Name of The Program	Duration	Dates	Mode Online / Offline
1.	210 MW Thermal Simulator Training	1 Week	April 18 – 29, 2022	Offline
2.	210 MW Thermal Simulator Training	2 Weeks	May 02 - 13, 2022	Offline
3.	500 MW Thermal Simulator Training	1 Week	May 23 – June 03, 2022	Offline
4.	500 MW Thermal Simulator Training	2 Weeks	June 06 – 17, 2022	Offline
5.	800 MW Thermal Simulator Training	1 Week	June 20 – July 01, 2022	Offline
6.	800 MW Thermal Simulator Training	2 Weeks	July 04-15, 2022	Offline
7.	210 MW Thermal Simulator Training	1 Week	July 18 – 29, 2021	Offline
8.	210 MW Thermal Simulator Training	2 Weeks	August 01 - 12, 2022	Offline
9.	500 MW Thermal Simulator Training	1 Week	August 22- Sept 02, 2022	Offline
10.	500 MW Thermal Simulator Training	2 Weeks	Sept 05 – 16, 2022	Offline
11.	800 MW Thermal Simulator Training	1 Week	Sept 19 – Sept 30, 2022	Offline

12.	800 MW Thermal Simulator Training	2 Weeks	Oct 10 – 21, 2021	Offline
13.	210 MW Thermal Simulator Training	1 Week	Oct 31 – Nov 11, 2022	Offline
14.	210 MW Thermal Simulator Training	2 Weeks	Nov 14 –Nov 25, 2022	Offline
15.	500 MW Thermal Simulator Training	1 Week	Nov 28 – Dec 09, 2022	Offline
16.	800 MW Thermal Simulator Training	1 Week	Dec 12- Dec 23, 2022	Offline
17.	500 MW Thermal Simulator Training	2 Weeks	Dec 26 – Jan 06, 2023	Offline
18.	800 MW Thermal Simulator Training	2 Weeks	Jan 09 – Jan 20, 2023	Offline
19.	210 MW Thermal Simulator Training	1 Week	Jan 23 – Feb 03, 2023	Offline
20.	210 MW Thermal Simulator Training	2 Weeks	Feb 06 – Feb 17, 2023	Offline
21.	500 MW Thermal Simulator Training	1 Week	Feb 20 – Mar 03, 2023	Offline
22.	500 MW Thermal Simulator Training	2 Weeks	Mar 06 – Mar 17, 2023	Offline



Two-Week Training Program on " Power Generation Technology through Simulations on 800 MW" for Lecturers of Govt. Polytechnics of Odisha was organised from 22.11.21 to 03.12.2021. The program was sponsored by DTET, Govt. of Odisha and funded by Asian Development Bank (ADB) under Odisha Skill Development Projects.



Visit of PFC officials at NPTI, Faridabad

# NPTI (North Eastern Region), Guwahati A. SHORT TERM COURSES

S. No.	Name of Course	Duration	Date of Commencement
	I. Power Generation and its ancillary e	quipments	
1	An Overview of Supercritical Technology	03 Days	Mutually agreed basis
2	Advanced O&M Practices of Supercritical Thermal Power Plant	01 Week	Mutually agreed basis
3	Issues Related to Supercritical Technology	02 Days	Mutually agreed basis
4	Flexible Operation of Thermal Power Plants in India	03 Days	Mutually agreed basis
5	Thermal Power Station Operation	01 Week	Mutually agreed basis
6	Boiler Operation/ Boiler & Its AuxiliariesOperation	01 Week	Mutually agreed basis
7	Boiler Firing System & Equipments	03 Days	Mutually agreed basis
8	Boiler Efficiency	02 Days	Mutually agreed basis
9	Renovation & Modernization of Thermal Power Plant/Station	01 Week	Mutually agreed basis
10	Steam Turbine & Its Aux. Operation	01 Week	Mutually agreed basis
11	Steam Turbine Governing	03 Days	Mutually agreed basis
12	Generator & Auxilliaries Including Excitation System	01 Week	Mutually agreed basis
13	Emerging Trends in Excitation System & AVR	03 Days	Mutually agreed basis
14	Thermal Power Plant Efficiency & Performance Monitoring	03 Days	Mutually agreed basis
15	Large Capacity Cfbc Boilers	03 Days	Mutually agreed basis
		03 Days	Mutually agreed basis
16	Regenerative Feed Heating System	01 Week	Mutually agreed basis
17	Fans & Air Heaters	03 Days	Mutually agreed basis
18	Electrostatic Precipitator	03 Days	Mutually agreed basis
19	Valves and Pumps in Power Plant Engineering	03 Days	Mutually agreed basis

20	Operation & Maintenance (O&M) of Coal Mills & Feeders	03 Days	Mutually agreed basis
21	Vibrational Analysis	03 Days	Mutually agreed basis
22	Trouble Shooting of Steam Turbine	03 Days	Mutually agreed basis
		03 Days	Mutually agreed basis
23	Reliability Centered Maintenance of Rotary Equipments	01 Week	Mutually agreed basis
24	Non-Destructive Testing & Welding Defects	01 Week	Mutually agreed basis
25	Electrical Motor for Power Plant & its Maintenance	03 Days	Mutually agreed basis
26	Fan & Air Heaters Maintenance	01 Week	Mutually agreed
27	Bearing Maintenance and Shaft Alignment	01 Week	basis Mutually agreed
28	Pump Maintenance	03 Days	basis Mutually agreed basis
29	Selection, O&M and Condition Monitoring of Large Electrical Motors and Generators for Industries and Power Plant Applications	03 Days	Mutually agreed basis
30	Condition Based Maintenance Aspect of Electrical Equipment's	03 Days	Mutually agreed basis
31	Valve and Pump Maintenance	01 Week	Mutually agreed basis
32	Pumps Operation, Maintenance and Performance Monitoring	03 Days	Mutually agreed basis
33	Valve Actuators Maintenance	03 Days	Mutually agreed basis
34	Valve Maintenance	03 Days	Mutually agreed basis
35	Boiler Tube Failure and Case Studies	01 Week	Mutually agreed basis
36	Welding Practices	01 Week	Mutually agreed basis
37	Advanced Welding and Testing Technologies	03 Days	Mutually agreed basis
38	Condition Based Maintenance for Rotary Equipment	03 Days	Mutually agreed basis
39	Power Plant Chemistry for Operation Engineers	01 Week	Mutually agreed basis
40	Insulation Audit of Power Plants & Power Industries	01 Days	Mutually agreed basis
41	Best Practices in O&M of Air Compressor	02 Days	Mutually agreed basis
42	Super Critical Power Plants – Innovations & Case Studies	03 Days	Mutually agreed basis

	II. Hydro Power and Renewable Energy	gy Systems	
43	Small, Mini and Micro Hydro Power Generation	03 Days	Mutually agreed basis
44	Hydro Turbines, Governing & its Protection Systems	03 Days	Mutually agreed basis
45	Hydro Generator & Its Excitation Systems	03 Days	Mutually agreed basis
46	Valves & Pumps in Hydro Power Plants	03 Days	Mutually agreed basis
47	Auxiliaries in Hydro Power Plants	03 Days	Mutually agreed basis
48	Hydro Power Plant Operation	01 Week	Mutually agreed basis
49	Specialized Training Program on Hydro Power Plant Engineering	03 Weeks	Mutually agreed basis
50	Solar power technologies	03 Days	Mutually agreed basis
51	Entrepreneurship Development Program on Solar Pv Rooftop	01 Week	Mutually agreed basis
52	Solar PV (Photovoltaic) System Design and Installation	01 Week	Mutually agreed basis
53	Solar Power Generation Technology - On Grid/ Off Grid, Smart Grids.	02 Days	Mutually agreed basis
54	Solar PV Panel - Installation, Maintenance and Testing	01 Week	Mutually agreed basis
55	Hybrid Renewable Energy Systems (HRES)	02 Days	Mutually agreed basis
56	Condition monitoring of Hydro Turbine Generator Set	03 Days	Mutually agreed basis
57	Capability Curve and Reactive Power Control of Hydro Generators	03 Days	Mutually agreed basis
58	Control and Instrumentation in Hydro Power Plant	03 Days	Mutually agreed basis
59	Hydrology Studies in Hydro Power Plant	03 Days	Mutually agreed basis
60	Tunnel and Tunneling Concept in Hydropower Project	03 Days	Mutually agreed basis
61	Major Civil Structure and its Maintenance in Hydropower Plant	03 Days	Mutually agreed basis
62	An Overview of Solar Thermal Technology	03 Days	Mutually agreed basis
63	Solar Photovolltaic Power Plant Integration with Grid and Storage Batteries	03 Days	Mutually agreed basis
64	Advance O&M techniques in Hydro Power Plants	03 Days	Mutually agreed basis
			Mutually agreed basis
			Mutually agreed basis

65	Best O&M Practices of Hydraulic Gates in Hydro Electric Plant	02 Days	Mutually agreed basis
66	Green Energy for Clean Environment/Green Energy Technologies	01 Day	Mutually agreed basis
67	Development of Floating Solar PV System (FSPV) in India	01 Day	Mutually agreed basis
68	Waste to EnergyTechnology: Green Energy Development	02 Days	Mutually agreed basis
69	Skill Development Program on Renewable Energy	01 Weeks	Mutually agreed basis
	III. Transmission and Distribution	System	
70	Power System Studies	03 Days	Mutually agreed basis
71	Power System Studies & Load Despatch	03 Days	Mutually agreed basis
72	Flexible Ac Transmission System (FACTS)	01 Week	Mutually agreed basis
73	HVDC Transmission Systems	03 Days	Mutually agreed basis
74	Operation & Maintenance (O&M) of Transmission Lines & Sub-Station	01 Week	Mutually agreed basis
75	Operation & Maintenance (O&M) of HT/LT Switchgear	01 Week	05.09.2022
76	High Voltage Testing of Power System Equipment	03 Days	Mutually agreed basis
77	Operation & Maintenance (O&M) HVDC Transmission Systems	01 Week	Mutually agreed basis
78	Power System Energy Losses	03 Days	Mutually agreed basis
79	Project Management of Ehv Lines & Towers including Sub - Station	01 Week	Mutually agreed basis
80	Distribution Engineering	01 Week	06.03.2023
81	Distribution Automation	03 Days	Mutually agreed basis
82	Transformers	03 Days	Mutually agreed basis
83	Condition Monitoring Residual Life Assessment (RLA) & LE of Substation Equipment	03 Days	Mutually agreed basis
84	Substation Planning & Engineering	03 Days	Mutually agreed basis
85	Power System Protection	03 Days	Mutually agreed basis
86	Advanced Power System Protection	01 Week	Mutually agreed basis
87	Electrical Protection System	01 Week	Mutually agreed basis
88	Relay Maintenance	03 Days	Mutually agreed basis

89	Electrical Protection System - Numerical Relay		Mutually agreed
09	Electrical Protection System - Numerical Relay	02 Days	basis
90	Protection Philosophy, Interlock and Relays Integration	02 Days	Mutually agreed basis
91	Operation & Maintenance (O&M) of Transformers and Circuit Breakers	01 Week	Mutually agreed basis
92	Operation & Maintenance (O&M) of Distribution System	01 Week	Mutually agreed basis
93	Operation & Maintenance of EHV Sub-Station	02 Weeks	Mutually agreed basis
94	Transmission & Distribution Equipment Maintenance	01 Week	Mutually agreed basis
95	Distribution Transformers Failure - Trends in O&M	03 Days	Mutually agreed basis
96	Operation & Maintenance (O&M) of Transformer	01 Week	Mutually agreed basis
97	Switchgear Maintenance	02 Days	07.04.2022, 02.06.2022, 19.12.2022
98	Transformer Maintenance	03 Days	06.02.2023
99	Best Practices in Operation & Maintenance (o&m) of Distribution Transformers Leading to Zero Breakdown	03 Days	Mutually agreed basis
100	Operation and Maintenance (O&M) of Sub-Station	01 Week	06.06.2022, 14.11.2022
101	O&M, Testing of Power Transformers and HT Circuit Breakers	03 Days	Mutually agreed basis
102	Switchgear and Transformer Maintenance	01 Week	Mutually agreed basis
103	Power Quality, Harmonics Mitigation and Reactive Power Management	03 Days	Mutually agreed basis
104	Power Quality Measurement	03 Days	Mutually agreed basis
105	Emerging Technologies in Reducing at&c losses	03 Days	Mutually agreed basis
106	Distribution Network Planning for UG Cable Systems		Mutually agreed basis
107	Power Cables and Jointing Techniques	03 Days	Mutually agreed basis
108	Distribution Metering	01 Week	16.08.2022
109	Transmission Line Maintenance and Introduction to Live Line Maintenance Techniques	01 Week	Mutually agreed basis
110	Hands - On Training on Power System for Engineering (PSSE)	01 Week	Mutually agreed basis
111	Operation and Maintenance (O & M), Testing of Power Transformers	03 Days	Mutually agreed basis

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112	Online Internship Training Program on Power Transmission, Distribution & Generation	04 Weeks	Mutually agreed basis
113	Best Practices in Distribution Operation & Management	01 Week	Mutually agreed basis
114	Best O&M practices of Switchgear and Transformers	01 Weak	Mutually agreed basis
	IV. Hot Line Training		
115	Awareness Programme For Executives in Hot Line Activities	01 week	Mutually agreed basis
116	Switchyard Maintenance Techniques using Llmt for Linemen/ Supervisors	04 week	Mutually agreed basis
117	Familiarization Program on Cold Lines	04 week	Mutually agreed basis
118	Live Line Punctured Insulator Detection (PID) on EHV Lines	01 week	Mutually agreed basis
119	Live Line Insulator Washing Techniques on Ehv Switchyard/Lines at Onside	04 Days	Mutually agreed basis
	V. Control and Instrumentation Eng	jineering	
120	Power Plant Instrumentation	03 Days	Mutually agreed basis
121	Control & Instrumentation (C&I) in Power Station (For Operation Engineers)	03 Days	Mutually agreed basis
122	Control & Instrumentation in Power Station	01 Week	Mutually agreed basis
123	Data Acquisition & Distributed Digital Control System in Thermal Power Station	03 Days	Mutually agreed basis
124	Power Plant Auto Control	03 Days	Mutually agreed basis
125	Power System Communication Scada & Ems	03 Days	Mutually agreed basis
126	Intelligent Load Management System	02 Days	Mutually agreed basis
127	Vibration Diagnostics and Fault Analysis	03 Days	Mutually agreed basis
128	PLC & SCADA in Thermal Power Plant	02 Days	Mutually agreed basis
129	Burner Management System/ Fsss	03 Days	Mutually agreed basis
	VI. Disaster and Safety Manage	ment	
130	Fire Prevention, Protection & Safety	03 Days	06.04.2022, 09.11.2022
131	Disaster Management, Electrical Safety Procedures and Accident Prevention	03 Days	Mutually agreed basis
132	Electrical Safety and Inspection of Electrical Installations, Accident, Prevention Recent Trends	03 Days	22.08.2022, 05.12.2022
		01 Week	Mutually agreed basis

133	afety in Power Station 02 Days		Mutually agreed basis
		02 Days	Mutually agreed basis
134	Operational Safety	02 Days	Mutually agreed basis
135	Electrical & Fire safety for Distribution Utilities	03 Days	Mutually agreed basis
136	"Measures Relating to Safety and Electrical Supply"		Mutually agreed basis
137	Industrial Safety	02 Days	Mutually agreed basis
138	Industrial Plant Safety	03 Days	Mutually agreed basis
139	Electrical Safety in Power Utilities On-line Workshop	02 Days	Mutually agreed basis
VII	. Grid Integration, Smart Grid & Smart Cities, EV a	nd Energy St	orage System
140	Renewable Energy & Grid Integration Technologies	03 Days	Mutually agreed basis
141	spv power plant - integration with grid and storage batteries	03 Days	Mutually agreed basis
142	Smart Grids and Renewable Energy Integration	01 Day	Mutually agreed basis
143	Role of Smart Grids on the Indian Power Sector: Current Developments, Challenges and way Forward	02 Days	Mutually agreed basis
144	Development of Microgrid (Mg) and Macrogrid (mcg) in India	03 Days	Mutually agreed basis
145	Smart Grid and Smart Metering Technologies and Applications	03 Days	Mutually agreed basis
		03 Days	Mutually agreed basis
146	Smart Grid for Utility Engineers	02 Days	Mutually agreed basis
147	Smart Power Flow Controller for Smarter Grid Applications	01 Day	Mutually agreed basis
148	Smart Grids for Smart Cities	03 Days	Mutually agreed basis
149	Battery Maintenance	03 Days	Mutually agreed basis
150	E-Mobility Mission of India: Concepts & Implications	02 Days	Mutually agreed basis
151	E-Mobility & Charging Infrastructure	03 Days	Mutually agreed basis
152	E-Mobility- Concept & Implication	02 Days	21.04.2022, 02.06.2022, 08.12.2022
153	Battery Energy Storage & Micro Grids in India	02 Days	Mutually agreed basis
154	Renewable Energy and Grid Interface Technology & Regulatory Framework	02 Days	Mutually agreed basis

155	Grid Integration of Hybrid Generation: Review of existing Sub-Station Controls required for upcoming RE Mix in Switchyard and handling Intermittency with Grid and Energy Storage options	03 Days	Mutually agreed basis
156	Smart Transmission & Distribution System	01 Week	Mutually agreed basis
VII	I. IT, ICT, GIS & RS, Big Data Analytics and Cyber S	Security	
157	IT General for Utility Engineers	01 Day	Mutually agreed basis
158	Cyber Security in Power Sector	01 Day	Mutually agreed basis
		03 Days	Mutually agreed basis
159	Smart Grid Technologies, Internet of Things and Cyber Security	02 Days	Mutually agreed basis
160	Block Chain Technology.	02 Days	Mutually agreed basis
161	Internet of Things for Smart Grid Applications.	02 Days	Mutually agreed basis
162	GIS and Remote Sensing Application in Hydropower Project	03 Days	Mutually agreed basis
163	Internet of Things for Robotics: On-Line Webinar	05 Days	Mutually agreed basis
164	Data Science & Big Data Analysis with industrial orientation (Energy & Utility)	03 Days	Mutually agreed basis
165	Cyber Security Issues in Smart Grid System – Online - Webinar	02 Days	Mutually agreed basis
166	Internet of Things for Smart Grid – Online - Workshop	02 Days	Mutually agreed basis
167	Data Sciences & Big Data Analytics	03 Days	Mutually agreed basis
	IX. Energy Efficiency, Energy Audit and Deman	d Side Man	agement
168	Energy Efficiency Management in Power System	03 Days	Mutually agreed basis
169	Energy Audit and Loss Reduction in T&D Systems	02 Days	Mutually agreed basis
170	Energy Efficiency in Electrical Utilities	03 Days	Mutually agreed basis
171	Energy Conservation and Energy Audit (For Generation Sector)	03 Days	Mutually agreed basis
172	Energy Audit & Demand Side Management in Power Utilities	03 Days	Mutually agreed basis
173	Big Data Analytics & Data Science Training covering descriptive, prescriptive & predictive analytics hands-on case studies with Industrial orientation (Energy & Utility)	01 Week	Mutually agreed basis

174	Energy Conservation and Energy Audit in Power Utilities	05 Days	Mutually agreed basis
175	Accelerating EnergyEfficiency in India: Initiatives & Opportunities	02 Days	Mutually agreed basis
176	Efficient Energy Management	01 Day	22.04.2022, 09.09.2022, 11.11.2022, 20.01.2023
	X. Power Management and Management Deve	lopment Pro	grams
177	Regulatory Framework in Power Sector	02 Days	Mutually agreed basis
178	Open Access, Power Trading and Tariffs – ABT Scenario	03 Days	Mutually agreed basis
179	Management of Renewable Energy (Solar Energy in Particular); Finance and Economics of Renewable Energy	02 Weeks	12.09.2022
180	Finance for Non-Finance Executives	02 Days	Mutually agreed basis
181	Contract Management	02 Days	07.04.2022, 25.08.2022
182	Behavioral Science	02 Days	Mutually agreed basis
183	Maintenance Planning & Cost Control	03 Days	Mutually agreed basis
184	Electricity Act and Regulation	03 Days	Mutually agreed basis
185	Government e-Marketplace (GeM) and General Financial Rules (GFR) 2017	01 Week	Mutually agreed basis
186	Government e-Marketplace (GeM) for Sellers & Service Providers	02 Days	Mutually agreed basis
187	Procurement Procedures & Contracting	03 Days	Mutually agreed basis
188	Regulatory Issues in Power Sector	05 Days	Mutually agreed basis
189	Leadership Skills and Stress Management	02 Days	21.04.2022, 16.06.2022, 30.01.2023
190	Human Resource Development Program for Finance Officer/ Manager	01 Week	Mutually agreed basis
	XI. ENVIRONMENTAL MANAGEI	MENT	
191	Environmental Issues in Thermal Power Stations and FGD Technology	02 Days	Mutually agreed basis
192	Environmental Pollution & Pollution Control Related to Power Plants Engineering	01 Week	Mutually agreed basis
193	Air Pollution Monitoring & Control Technologies	02 Days	Mutually agreed basis
194	Environmental Impact Assessment and Environment Management Plan	03 Days	Mutually agreed basis
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X	XII. OTHER TRAINING PROGRAMS AS PER THE REQUIREMENT OF CLIENT MUTUALLY AGREED BASIS				
195	Maintenance & Protection of Transformers	02 Days	07.04.2022, 23.06.2022, 18.08.2022, 08.12.2022, 09.02.2023		
196	Emergency Operation of TPS and Power Plant Safety	02 Days	Mutually agreed basis		
197	Zero Accident Mindset to Protect Personnel Environment and Equipment	02 Days	Mutually agreed basis		
198	Potential Hazards in Power Plant	02 Days	Mutually agreed basis		
199	Safe Handling Procedures in Mechanical/Electrical (Rotary and Static)	02 Days	Mutually agreed basis		
200	Fire Hazards in Power Plant	02 Days	Mutually agreed basis		

#### **B. MEDIUM TERM COURSES**

S. No.	Name of Course	Duration	Date of Commencement
1	3 Months Course on "Design, Erection and Commissioning of Solar Power Plants"	3 Months	Mutually agreed basis
2	3 Months Course on 'Distribution Substation Management & Optimal Utilization of Components'	3 Months	Mutually agreed basis
3	Live Line Maintenance Techniques (Llmt), Using Hot Stick Method (Hsm)	11 Weeks	Mutually agreed basis
4	Live Line Maintenance Techniques (Llmt) using Bare Hand Method (Bhm) on 400kvLines	05 Weeks	Mutually agreed basis
5	Post Graduate Certificate Course (PGCC) in Power Plant Engineering	3 Months	Mutually agreed basis
6	Post Graduate Certificate Course in E-Mobility and Smart Utilities	4 Months	Mutually agreed basis
7	Certificate Course for Hydro Power Plant Engineers and Supervisors	12 Weeks	Mutually agreed basis
8	Specialized Training on O&M of Hydro Power Plant	12 Weeks	Mutually agreed basis
		06 Weeks	Mutually agreed basis
9	Distribution Engineering	06 Weeks	Mutually agreed basis
10	Control & Instrumentation for Supervisors / Technicians	06 Weeks	Mutually agreed basis

11	Training Programfor Supervisor/Managerial Person Deployed in Power Industry	06 Weeks	Mutually agreed basis
12	New and Renewable Sources and Grid Integration in India	06 Weeks	Mutually agreed basis
		1.5 Months	Mutually agreed basis
13	Executive Development Program for the Supervisory Staff Working in Finance & Accounts Department	1.5 Months	Mutually agreed basis
14	3 Month Skill Development Program on "Thermal Power Plant Operation"	12 Weeks	Mutually agreed basis
15	MNRE Sponsored Solar PV Installer "Suryamitra" for Diploma/ITI Holder	12 Weeks	Mutually agreed basis

#### C. LONG TERM COURSES

S. No.	Name of Course	Institute Duration		Date of Commencement
1	Post Graduate Diploma Course (Pgdc) in Power Plant Engineering	Faridabad, Badarpur, Nangal, Neyveli, Durgapur, Guwahati, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri		06.06.2022
2	Post Graduate Diploma Course (PGDC) in Renewable Energy and Grid Interface Technologies	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
3	Post Graduate Diploma Course (PGDC) in Smart Grid Technologies	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
4	Post Graduate Diploma Course (PGDC) in Energy Market Management	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
5	Post Graduate Diploma Course (PGDC) in Power System Operation	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
6	Post Graduate Diploma Course (PGDC) in Hydro Power Plant Engineering	Nangal	39 Weeks	Mutually agreed basis
7	Post Graduate Diploma Course (PGDC) in	Badarpur	26 Weeks	Mutually agreed basis
	Transmission & Distribution System	Durgapur	26 Weeks	Mutually agreed basis
		Nagpur	26 Weeks	Mutually agreed basis
		PSTI, Bangalore	26 Weeks	Mutually agreed basis

		Shivpuri	26 Weeks	Mutually agreed basis
		Alappuzha	26 Weeks	Mutually agreed basis
	Past Diploma Course (DDC)	Nagpur	52 Weeks	Mutually agreed basis
8	Post Diploma Course (PDC)	Guwahati	52 Weeks	06.06.2022
	in Power Plant Engineering	Durgapur	52 Weeks	Mutually agreed basis
		Badarpur	52 Weeks	Mutually agreed basis
		Shivpuri	52 Weeks	Mutually agreed basis
9	Post Diploma Course (PDC) in Hydro Power Plant Engineering	Nangal	26 Weeks	Mutually agreed basis
10	Graduate Engineers Course	Durgapur	52 Weeks	Mutually agreed basis
	(Power Plant Engineering)	Nagpur	52 Weeks	Mutually agreed basis
11	Graduate Engineers Course (Thermal Condensed)	Nagpur	26 Weeks	Mutually agreed basis
12	Post Diploma Course in Renewable Energy including Solar Technology	Nagpur	26 Weeks	Mutually agreed basis

#### **D. SIMULATOR**

S. No.	Name of Course	Duration	Date of Commencement		
1	210 MW Fossil Fuel Power Plant	02 Weeks	Mutually agreed basis		
2	500 MW Fossil Fuel Power Plant	02Weeks	Mutually agreed basis		
3	430 MW Combined Cycle Gas Turbine Power Plant	02Weeks	Mutually agreed basis Mutually agreed basis		
4	250 MW Hydro Simulator Training	01Week	Mutually agreed basis		
5	Dispatcher Training Simulator (DTS)	02Weeks	Mutually agreed basis		
6	800 MW/660 MW (Emulated) Super Critical Thermal Power Plant Simulator Training	02Weeks	Mutually agreed basis Mutually agreed basis		
7	Multifunctional Simulator Configurations				
i	210 MW-Thermal Power Plant	02 Weeks	Mutually agreed basis		
		02 Weeks	Mutually agreed basis		

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		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis
ii	250 MW-Hydro Power Plant	01 Week	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
iii	500 MW-Thermal Power Plant	02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis
iv	550 MW-Combined Cycle Power Plant	02 Weeks	Mutually agreed basis
V	800 MW/660 MW (Emulated) Super Critical Thermal Power Plant Simulator Training	02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis
vi	SCADA & Smart Grid Simulator	01 Week	Mutually agreed basis
		02Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis

# NPTI (Western Region), Nagpur

SI. No.	Course	Duration in Days	Date of Commencement	Course Co-ordinator & Mobile No./Email S/Shri
	A. SHORT	TERM COU	RSES	
	April 2022			
1.	Smart Transmission & Distribution System	1 Week	11/04/2022	Preetam Singh, Asst. Director.07709047008 preetam.npti@gov.in
	May 2022			
2.	Boiler & Its Auxiliaries Operation	4 Days	17/05/2022	SI Mahant, Dy. Director. 09225222284 <u>shekhar.npti@gov.in</u>
	June 2022			
3.	Control & Instrumentation for Operation Engineers	3 Days	15/06/2022	Sanjay Singh, Dy. Director. 09823999664 <u>sanjays.npti@gov.in</u>
4.	Thermal Power Plant Efficiency & Performance Monitoring	3 Days	22/06/2022	SI Mahant, Dy. Director. 09225222284 <u>shekhar.npti@gov.in</u>
	July 2022			
5.	Generator & Auxiliaries Including Excitation System	3 Days	06/07/2022	SP Dharmadhikari, Dy.Director. 09423073964 spdharma.npti@gov.in
	August 2022			
6.	Operation & Maintenance of HVAC Transmission System	1 Week	22/08/2022	Preetam Singh, Asst. Director.07709047008 preetam.npti@gov.in
	September 2022			
7.	Thermal Power Plant Operation	4 Days	06/09/2022	SI Mahant, Dy. Director. 09225222284 shekhar.npti@gov.in
8.	Electrical Protection System	4 Days	13/09/2022	SP Dharmadhikari, Dy.Director. 09423073964 spdharma.npti@gov.in

SI. No.	Course	Duration in Days	Date of Commencement	Course Co-ordinator & Mobile No./Email S/Shri
	A. SHORT		RSES	
	October 2022			
	Operation, Maintenance and Testing of Power Transformer	3 Days	10/10/2022	P.P. Mawle, Dy.Director 8600260109 ppmawle.npti@gov.in
10	Power System & Load Dispatch	3 Days	17/10/2022	SP Dharmadhikari, Dy.Director. 09423073964 spdharma.npti@gov.in
	November 2022			
	Energy Conservation & Energy Audit for Generation Sector	3 Days	16/11/2022	SI Mahant, Dy. Director. 09225222284 <u>shekhar.npti@gov.in</u>
12	Condition Monitoring , Vibration Analysis and Fault Diagnostic of Rotating Machines		28/11/2022	SI Mahant, Dy. Director. 09225222284 shekhar.npti@gov.in
	December 2022			
13	Regulatory Framework & Legal / Commercial Issues in Power Sector	2 Days	01/12/2022	Preetam Singh, Asst. Director.07709047008 preetam.npti@gov.in
14	Project Management of EHV Lines & Towers Including Sub-Stations	1 Week	12/12/2022	Preetam Singh, Asst. Director.07709047008 preetam.npti@gov.in
15	Best Practices in Operation & Maintenance in Distribution System & Electrical Safety	1 Week	19/12/2022	P.P. Mawle, Dy.Director 8600260109 ppmawle.npti@gov.in
16	Emerging Technologies in Reducing AT&C Losses	2 Days	22/12/2022	SP Dharmadhikari, Dy.Director. 09423073964
				spdharma.npti@gov.in
SI. No.	Course	Duration in Days	Date of Commencement	Course Co-ordinator & Mobile No./Email S/Shri
	A. SHOR January 2023	T TERM COL	JRSES	
17	Finance for Non-Finance Executives	2 Days	05/01/2023	SI Mahant, Dy. Director. 0922522284 <u>shekhar.npti@gov.in</u>

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18	Smart Metering Technologies & Applications	2 Days	09/01/2023	Preetam Singh, Asst. Director. 07709047008 <u>preetam.npti@gov.in</u>
19	Operation & Maintenance of Sub-Station	1 Week	16/01/2023	SP Dharmadhikari, Dy.Director. 09423073964 spdharma.npti@gov.in
	February 2023			
20	Data Acquisition & Distributed Digital Control System in Thermal Power Station	3 Days	08/02/2023	SP Dharmadhikari, Dy.Director. 09423073964 spdharma.npti@gov.in
	Flue Gas Desulphirisation Technologies for TPS	2 Days	13/02/2023	SI Mahant, Dy. Director. 09225222284 <u>shekhar.npti@gov.in</u>
22	Best Practices in Operation and Maintenance of Transmission Systems (400 KV) , Earthing, Safety, Rules, Regulations, IS	1 Week	20/02/2023	P.P. Mawle, Dy.Director 8600260109 ppmawle.npti@gov.in
	March 2023			
23	Environmental Management – Impact of Climate changes & its Assessment	2 Days	09/03/2023	P.P. Mawle, Dy.Director 8600260109 ppmawle.npti@gov.in
24	Power Plant Instrumentation & Automation Systems.	4 Days	14/03/2023	Sanjay Singh, Dy. Director. 09823999664 <u>sanjays.npti@gov.in</u>
	B. MEDIU		URSES	
				Course Co-
SI. No.	Course	Duration in Days	Date of Commencement	ordinator & Mobile No./Email S/Shri
25.	Solar Electricity Generation, Solar Water Heating System, Solar Water Pumps	8 Weeks	03/10/2022	Sanjay Singh, Dy. Director. 09823999664 sanjays.npti@gov.in
26.	Bio Waste Conversion Technology	6 Weeks	14/11/2022	Sanjay Singh, Dy. Director. 09823999664 <u>sanjays.npti@gov.in</u>
27.	Distribution Engineering	6 Weeks	05/12/2022	SI Mahant, Dy. Director. 09225222284 <u>shekhar.npti@gov.in</u>

28.	Training Program for Supervisor / Managerial Person deployed in Power Industry	6 Weeks	30/01/2023	Preetam Singh, Asst. Director. 07709047008 preetam.npti@gov.in
29.	Control & Instrumentation for Engineers	6 Weeks	13/02/2023	SP Dharmadhikari, Dy.Director. 09423073964 <u>spdharma.npti@gov.in</u>
30.	New and Renewable Energy with Grid Integration.	6 Weeks	13/03/2023	Sanjay Singh, Dy. Director. 09823999664 <u>sanjays.npti@gov.in</u>

	C. LONG	TERM COUP	RSES	
SI. No.	Course	Duration in Days	Date of Commencement	Course Co- ordinator & Mobile No./Email S/Shri
31.	Post Graduate Diploma Course in Power Plant Engineering (Regular) & (Winter)	52 Weeks	29/08/2022 & 27/02/2023	SI Mahant, Dy. Director. 09225222284 & S.P. Dharmadhikari Dy. Director. 09423073964
32.	Graduate Engineers Course (Power PlantEngineering) (Regular) & (Winter)	52 Weeks	29/08/2022 & 27/02/2023	SI Mahant, Dy. Director. 09225222284 & S.P. Dharmadhikari Dy. Director. 09423073964
33.	Post Graduate Diploma Course In Transmission and Distribution System	26 Weeks	29/08/2022	P.P. Mawle, Dy.Director. 8600260109
34.	Post Diploma Course in Power Plant Engineering (Regular) & (Winter)	52 Weeks	29/08/2022 & 27/02/2023	Preetam Singh, Asst. Director. 07709047008 & Sanjay Singh, Dy. Director. 09823999664

35. Post Diploma Course in	Renewable	26	29/08/2022	Preetam Singh,
Energy including Solar	Technology	Weeks	& 27/02/2023	Asst.Director.
(Regular) & (Winter)				07709047008
				&
				Sanjay Singh,
				Dy. Director.
				09823999664

	D. FOSSIL FUEL P	OWER PLANT SIMULATOR TRAIN	IING PROGRAMS.
1	210 MW/500 MW/800 MW Simulator Training	18/04/2022	Preetam Singh, Asst. Director.
2	210 MW/500 MW/800 MW Simulator Training	09/05/2022	Preetam Singh, Asst. Director.
3	210 MW/500 MW/800 MW Simulator Training	06/06/2022	Preetam Singh, Asst. Director.
4	210 MW/500 MW/800 MW Simulator Training	18/07/2022	Preetam Singh, Asst. Director.
5	210 MW/500 MW/800 MW Simulator Training	22/08/2022	Preetam Singh, Asst. Director.
6	210 MW/500 MW/800 MW Simulator Training	12/09/2022	Preetam Singh, Asst. Director.
7	210 MW/500 MW/800 MW Simulator Training	10/10/2022	Preetam Singh, Asst. Director.
8	210 MW/500 MW/800 MW Simulator Training	21/11/2022	Preetam Singh, Asst. Director.
9	210 MW/500 MW/800 MW Simulator Training	19/12/2022	Preetam Singh, Asst. Director.
10	210 MW/500 MW/800 MW Simulator Training	09/01/2023	Preetam Singh, Asst. Director.
11	210 MW/500 MW/800 MW Simulator Training	13/02/2023	Preetam Singh, Asst. Director.
10	210 MW/500 MW/800 MW Simulator Training	13/03/2023	Preetam Singh, Asst. Director.
12	210 MW/500 MW/800 MW Simulator Training	As per Client's requirement	SI Mahant, Dy. Director. & Preetam Singh, Asst. Director.

E.	E. LIST OF WORKSHOPS / SEMINARS / CONFERENCES PLANNED FOR THE YEAR 2022-23 AT NPTI (WR), NAGPUR.						
Sr.							
No.	conference		Commencement	( S/ Shri)			
1.	New technologies in Indian	Two days	From	Preetam Singh,			
	Power Transmission sector –		05/12/2022 to	Asst.Director			
	Opportunities and Challenges		06/12/2022	07709047008			
				preetam.npti@gov.in			

2.	Renewable Energy Technologies – Indian Perspective and Challanges	One day	22/12/2022	Sanjay Singh, Dy.Director 09823999664 sanjays.npti@gov.in
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M/s. JSW visited NPTI(WR) Nagpur to conduct placement drivefor PGDC students on 31<sup>st</sup> Jan 2022



Simulator Training for Junoir Engineer Trainees (JETs) of MPPGCJ from 25<sup>th</sup> Oct 2021 to 5<sup>th</sup> Nov 2021



Simulator Training under 1<sup>st</sup> RDSS program at NPTI, Faridabad





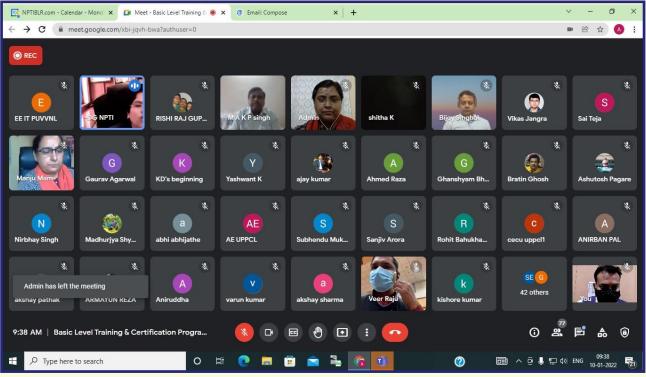
Training programs on "Vibration Diagnostic & Fault Analysis" for Executives of BPSCL & NTPC-SAIL initiatives "SAKSHAM" program on Welding Practice-Arc/Gas by NPTI Durgapur

Conclusion of 3 day training under 1<sup>st</sup> RDSS program at NPTI, Faridabad



Inaguration of 6 months PDGC in Transmision & Distribution Systems on 20.12.2021 by PSTI Bengaluru

	New program list of Nagpur				
Sr. No.	Program Name	Days	Duration		
1	Finance for Non-Finance Executives	2 Days	1/5/2023		
2	Best Practices in Operation & Maintenance in Distribution System & Electrical Safety	1 Week	2/20/2023		
3	Smart Metering Technologies & Applications	2 Days	1/9/2023		
4	Regulatory Framework & Legal / Commercial Issues in Power Sector	2 Days	12/1/2022		
5	Flue Gas Desulphirisation Technologies for TPS	2 Days	2/13/2023		
6	Environmental Management – Impact of Climate changes & its Assessment	2 Days	3/9/2023		
7	Best Practices in Operation & Maintenance of Boiler and its Auxiliaries	4 Days	5/17/2022		
8	Bio Waste Conversion Technology	6 Week	11/14/2022		
9	New and Renewable Energy with Grid Integration	6 Week	3/13/2023		



Inaugural Pics of One Weeks Online Cyber Security Training and Certification Program 10 jan 2022 by NPTI Faridabad and PSTI Bengaluru

# NPTI, Shivpuri

S. No.	Name of Course	Duration	Date of Commencement
1	New Tarent solar thermal technology	3 Days	03/04/2022
2	Smart Grid and Renewable Energy Integration	2 Days	07/04/2022 to 08/04/2022
3	SPV Power Plant- Integration with Grid and Storage Batteries	3 Days	11/04/2022 to 13/04/2022
4	Concept of Commissioning of Hydroelectric Power Plants	5 Days	18/04/2022 to 22/04/2022
5	GIS & Remote sensing application in Hydropower projects	3 Days	25/04/2022 to 27/04/2022
6	Three Days Short term Online Training Program on Thermal Power Plant Efficiency & Performance Monitoring.	3 Days	02/05/2022 to 04/05/2022
7	One Day Online Training Program on Insulation Audit of Power Plants & Process Industries	1 Day	16/05/2022
8	BOE Preparatory Training	5 Days	16/05/2022 to 20/05/2022
9	Energy Audit and Demand Side management in Power Utilities	3 Days	09/05/2022 to 11/05/2022
10	Thermal Power Plant Efficiency & Performance Monitoring	3 Days	23/05/2022 to 25/05/2022
11	Industrial application of Thermal Engineering	3 Days	01/06/2022 to 03/06/2022
12	Reactive Power Management	3 Days	06/06/2022 to 08/06/2022
13	Cyber Security and ethical hacking with special application in Thermal Power Plants	2 Days	09/06/2022 to 10/06/2022
14	Water optimization & Audit in Thermal Power Plant	3 Days	13/06/2022 to 15/06/2022
15	Harmonic mitigation and increase efficiency	3 Days	22/06/2022 to 24/06/2022
16	Distributed Control System, Instrumentation, SCADA System and Communication Network	5 Days	04/07/2022 to 08/07/2022
17	Maintenance Planning & Cost control objectives	3 Days	11/07/2022 to 13/07/2022
18	Air handling systems & its Industrial applications	3 Days	18/07/2022 to 20/07/2022

19	E-Vehicle and charging infrastructure	2 Days	21/07/2022 to 22/06/2022
20	Energy Audit & Loss Reduction in T&D	3 Days	25/07/2022 to 27/07/2022
21	Cyber Security for Hydro Power Plants	2 Days	02/08/2022 to 30/08/2022
22	Smart Cities and Emerging trends Building Concept in India	2 Days	04/08/2022 to 05/08/2022
23	Flexible operation of TPP, Multiple fuel firing	3 Days	08/08/2022 to 10/08/2022
24	Scheduling of Power	3 Days	15/08/2022 to 17/08/2022
25	Renewable Energy-Emerging Technology	3 Days	22/08/2022 to 24/08/2022
26	Flue Gas Desulphurization Technologies in Thermal Power Plant	3 Days	05/09/2022 to 07/09/2022
27	Overview of PAT Scheme	2 Days	19/09/2022 to 20/09/2022
28	Basic of NDT	2 Days	22/09/2022 to 23/09/2022
29	Reduction of Power Theft in Discom	3 Days	13/09/2022 to 15/09/2022
30	Industrial Plant safety	3 Days	26/09/2022 to 28/09/2022
31	Industrial Fluid Handling Solutions	3 Days	03/10/2022 to 05/10/2022
32	O & M of Transformer & Switchgear	3 Days	10/10/2022 to 12/10/2022
33	Smart Grid Technologies, Internet of Things and Cyber Security	2 Days	13/10/2022 to 14/10/2022
34	Wind Power Scheduling	2 Days	20/10/2022 to 21/10/2022
35	Entrepreneurship Development Program on Solar PV Rooftop	5 Days	24/10/2022 to 28/10/2022
36	Hydraulic Turbine Testing	5 Days	07/11/2022 to 11/11/2022
37	Grid Discipline -Fault Analysis Management, Operation of Power Station	5 Days	21/11/2022 to 25/11/2022
38	Supercritical Technology	5 Days	14/11/2022 to 18/11/2022
39	Measurement & Controlling of SOX, NOX, Hg	5 Days	31/10/2022 to 04/11/2022
40	Improve operational & Financial efficiency in Discom	5 Days	28/11/2022 to 02/12/2022
41	Emerging trends in excitation system & AVR	3 Days	07/12/2022 to 09/12/2022
42	CO2 Capture & Storage Technology & Sustainability of Coal Based Power Plants	3 Days	12/12/2022 to 14/12/2022
43	Testing of Generator, Transformers, Reactors, HV Cables, Switchyard Equipment's,	3 Days	21/12/2022 to 23/12/2022

	Transformer oil & Testing Equipment's		
44	Cyber Security in Power Sector	3 Days	28/12/2022 to 30/12/2022
45	Solar Power Technologies	6 Days	15/12/2022 to 20/12/2022
46	An overview of Waste Heat Recovery technology	3 Days	04/01/2023 to 06/01/2023
47	Renovation & Modernization of Power Plants	3 Days	11/01/2023 to 13/01/2023
48	Condition Monitoring and Fault Diagnostics of Rotating Machines	5 Days	14/01/2023 to 18/01/2023
49	Power System Protection Principles, Protection Relays & Fault Analysis	3 Days	19/01/2023 to 21/01/2023
50	Shooting Of Steam Turbines		Mutually agreed basis
51	Regenerative Feed heating System		Mutually agreed basis
52	Electro Static precipitator		Mutually agreed basis
53	Switch Gear Maintenance		Mutually agreed basis
54	O&M Substation		Mutually agreed basis
55	Fire Privation Protection And Safety		Mutually agreed basis
56	Block Chain Technology		Mutually agreed basis
57	IT General For utility Engineers		Mutually agreed basis
58	Battery Maintenance		Mutually agreed basis
59	Regulatory Framework In power Sector		Mutually agreed basis
60	Fixable Transmission System (Facts)		Mutually agreed basis



One week training program on Renewable Energy and Emerging Technologies for executive Engineers of SJVNL Limited from 6th Sep 2021 to 10th Sep 2021 by NPTI Faridabad

### **Short Term Courses**

S. No.	Name of Course	Duration	Date of Commencement			
	I. Power Generation and its ancillary equipments					
1	An Overview of Supercritical Technology	03 Days	Mutually agreed basis			
2	Advanced O&M Practices of Supercritical Thermal Power Plant	01 Week	Mutually agreed basis			
3	Issues Related to Supercritical Technology	02 Days	Mutually agreed basis			
4	Flexible Operation of Thermal Power Plants in India	03 Days	Mutually agreed basis			
5	Thermal Power Station Operation	01 Week	Mutually agreed basis			
6	Boiler Operation/ Boiler & Its Auxiliaries Operation	01 Week	5/17/2022			
7	Boiler Firing System & Equipments	03 Days	Mutually agreed basis			
8	Boiler Efficiency	02 Days	Mutually agreed basis			
9	Renovation & Modernization of Thermal Power Plant/Station	01 Week	Mutually agreed basis			
10	Steam Turbine & Its Aux. Operation	01 Week	Mutually agreed basis			
11	Steam Turbine Governing	03 Days	Mutually agreed basis			
12	Generator & Auxilliaries Including Excitation System	01 Week	7/6/2022			
13	Emerging Trends in Excitation System & AVR	03 Days	Mutually agreed basis			
14	Thermal Power Plant Efficiency & Performance Monitoring	03 Days	6/22/2022			
15	Large Capacity Cfbc Boilers	03 Days	Mutually agreed basis			
		03 Days	Mutually agreed basis			
16	Regenerative Feed Heating System	01 Week	Mutually agreed basis			
17	Fans & Air Heaters	03 Days	Mutually agreed basis			
18	Electrostatic Precipitator	03 Days	Mutually agreed basis			
19	Valves and Pumps in Power Plant Engineering	03 Days	Mutually agreed basis			
20	Operation & Maintenance (O&M) of Coal Mills & Feeders	03 Days	Mutually agreed basis			
21	Vibrational Analysis	03 Days	Mutually agreed basis			

22	Trouble Shooting of Steam Turbine	03 Days	Mutually agreed basis
23	Reliability Centered Maintenance of Rotary Equipments	01 Week	Mutually agreed basis
24	Non-Destructive Testing & Welding Defects	01 Week	Mutually agreed basis
25	Electrical Motor for Power Plant & its Maintenance	03 Days	Mutually agreed basis
26	Fan & Air Heaters Maintenance	01 Week	Mutually agreed basis
27	Bearing Maintenance and Shaft Alignment	01 Week	Mutually agreed basis
28	Pump Maintenance	03 Days	Mutually agreed basis
29	Selection, O&M and Condition Monitoring of Large Electrical Motors and Generators for Industries and Power Plant Applications	03 Days	Mutually agreed basis
30	Condition Based Maintenance Aspect of Electrical Equipment's	03 Days	Mutually agreed basis
31	Valve and Pump Maintenance	01 Week	Mutually agreed basis
32	Pumps Operation, Maintenance and Performance Monitoring	03 Days	Mutually agreed basis
33	Valve Actuators Maintenance	03 Days	Mutually agreed basis
34	Valve Maintenance	03 Days	Mutually agreed basis
35	Boiler Tube Failure and Case Studies	01 Week	Mutually agreed basis
36	Welding Practices	01 Week	Mutually agreed basis
37	Advanced Welding and Testing Technologies	03 Days	Mutually agreed basis
38	Condition Based Maintenance for Rotary Equipment	03 Days	Mutually agreed basis
39	Power Plant Chemistry for Operation Engineers	01 Week	Mutually agreed basis
40	Insulation Audit of Power Plants & Power Industries	01 Days	Mutually agreed basis
41	Best Practices in O&M of Air Compressor	02 Days	Mutually agreed basis
42	Super Critical Power Plants – Innovations & Case Studies	03 Days	Mutually agreed basis
43	Small, Mini and Micro Hydro Power Generation	03 Days	Mutually agreed basis
44	Hydro Turbines, Governing & its Protection Systems	03 Days	Mutually agreed basis
45	Hydro Generator & Its Excitation Systems	03 Days	Mutually agreed basis

46	Valves & Pumps in Hydro Power Plants	03 Days	Mutually agreed basis
47	Auxiliaries in Hydro Power Plants	03 Days	Mutually agreed basis
48	Hydro Power Plant Operation	01 Week	Mutually agreed basis
49	Specialized Training Program on Hydro Power Plant Engineering	03 Weeks	Mutually agreed basis
50	Solar power technologies	03 Days	Mutually agreed basis
51	Entrepreneurship Development Program on Solar Pv Rooftop	01 Week	Mutually agreed basis
52	Solar PV (Photovoltaic) System Design and Installation	01 Week	Mutually agreed basis
53	Solar Power Generation Technology - On Grid & Off Grid	02 Days	Mutually agreed basis
54	Solar PV Panel - Installation, Maintenance and Testing	01 Week	Mutually agreed basis
55	Hybrid Renewable Energy Systems (HRES)	02 Days	Mutually agreed basis
56	Condition monitoring of Hydro Turbine Generator Set	03 Days	Mutually agreed basis
57	Capability Curve and Reactive Power Control of Hydro Generators	03 Days	Mutually agreed basis
58	Control and Instrumentation in Hydro Power Plant	03 Days	Mutually agreed basis
59	Hydrology Studies in Hydro Power Plant	03 Days	Mutually agreed basis
60	Tunnel and Tunneling Concept in Hydropower Project	03 Days	Mutually agreed basis
61	Major Civil Structure and its Maintenance in Hydropower Plant	03 Days	Mutually agreed basis
62	An Overview of Solar Thermal Technology	03 Days	Mutually agreed basis
63	Solar Photovolltaic Power Plant Integration with Grid and Storage Batteries	03 Days	Mutually agreed basis
64	Advance O&M techniques in Hydro Power Plants	03 Days	Mutually agreed basis
65	Best O&M Practices of Hydraulic Gates in Hydro Electric Plant	02 Days	Mutually agreed basis
66	Green Energy for Clean Environment/Green Energy Technologies	01 Day	Mutually agreed basis
67	Development of Floating Solar PV System (FSPV) in India	01 Day	Mutually agreed basis
68	Waste to EnergyTechnology: Green Energy Development	02 Days	Mutually agreed basis
69	Skill Development Program on Renewable Energy	01 Weeks	Mutually agreed basis

	III. Transmission and Distribution S	System	
70	Power System Studies	03 Days	Mutually agreed basis
71	Power System Studies & Load Despatch	03 Days	10/17/2022
72	Flexible Ac Transmission System (FACTS)	01 Week	Mutually agreed basis
73	HVDC Transmission Systems	03 Days	Mutually agreed basis
74	Operation & Maintenance (O&M) of Transmission Lines & Sub-Station	01 Week	1/16/2023
75	Operation & Maintenance (O&M) of HT/LT Switchgear	01 Week	Mutually agreed basis
76	High Voltage Testing of Power System Equipment	03 Days	Mutually agreed basis
77	Operation & Maintenance (O&M) HVDC Transmission Systems	01 Week	8/22/2022
78	Power System Energy Losses	03 Days	Mutually agreed basis
79	Project Management of Ehv Lines & Towers including Sub - Station	01 Week	12/12/2022
80	Distribution Engineering	01 Week	Mutually agreed basis
81	Distribution Automation	03 Days	Mutually agreed basis
82	Transformers	03 Days	Mutually agreed basis
83	Condition Monitoring Residual Life Assessment (RLA) & LE of Substation Equipment	03 Days	Mutually agreed basis
84	Substation Planning & Engineering	03 Days	Mutually agreed basis
85	Power System Protection	03 Days	Mutually agreed basis
86	Advanced Power System Protection	01 Week	Mutually agreed basis
87	Electrical Protection System	01 Week	9/13/2022
88	Relay Maintenance	03 Days	Mutually agreed basis
89	Electrical Protection System - Numerical Relay	02 Days	Mutually agreed basis
90	Protection Philosophy, Interlock and Relays Integration	02 Days	Mutually agreed basis
91	Operation & Maintenance (O&M) of Transformers and Circuit Breakers	01 Week	Mutually agreed basis
92	Operation & Maintenance (O&M) of Distribution System	01 Week	12/19/2022
93	Operation & Maintenance of EHV Sub-Station	02 Weeks	Mutually agreed basis

#### III. Transmission and Distribution System

94	Transmission & Distribution Equipment Maintenance	01 Week	Mutually agreed
95	Distribution Transformers Failure - Trends in O&M	03 Days	basis Mutually agreed
		,	basis
96	Operation & Maintenance (O&M) of Transformer	01 Week	Mutually agreed basis
97	Switchgear Maintenance	02 Days	Mutually agreed basis
98	Transformer Maintenance	03 Days	Mutually agreed basis
99	Best Practices in Operation & Maintenance (O&M) of Distribution Transformers Leading to Zero Breakdown	03 Days	Mutually agreed basis
100	Operation and Maintenance (O&M) of Sub-Station	01 Week	Mutually agreed basis
101	O&M, Testing of Power Transformers and HT Circuit Breakers	03 Days	Mutually agreed basis
102	Switchgear and Transformer Maintenance	01 Week	Mutually agreed basis
103	Power Quality, Harmonics Mitigation and Reactive Power Management	03 Days	Mutually agreed basis
104	Power Quality Measurement	03 Days	Mutually agreed basis
105	Emerging Technologies in Reducing at&c losses	03 Days	12/22/2022
106	Distribution Network Planning for UG Cable Systems		Mutually agreed basis
107	Power Cables and Jointing Techniques	03 Days	Mutually agreed basis
108	Distribution Metering	01 Week	Mutually agreed basis
109	Transmission Line Maintenance and Introduction to Live Line Maintenance Techniques	01 Week	Mutually agreed basis
110	Hands - On Training on Power System for Engineering (PSSE)	01 Week	Mutually agreed basis
111	Operation and Maintenance (O & M), Testing of Power Transformers	03 Days	10/10/2022
112	Online Internship Training Program on Power Transmission, Distribution & Generation	04 Weeks	Mutually agreed basis
113	Best Practices in Distribution Operation & Management	01 Week	Mutually agreed basis
114	Best O&M practices of Switchgear and Transformers	01 Weak	Mutually agreed basis
	IV. Hot Line Training		•
115	Awareness Programme For Executives in Hot Line Activities	01 week	(1)13.06.2022 to 17.06.2022 (2)03.10.2022 to 07.10.2022 (3) 30.01.2023 to 03.2.2023
116	Switchyard Maintenance Techniques using Llmt for Linemen/ Supervisors	04 week	27.02.2023 to 24.03.2023
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117	Familiarization Program on Cold Lines	04 week	11.07.2022 to 05.08.2022
118	Live Line Punctured Insulator Detection (PID) on EHV Lines	01 week	04.7.2022 to 08.07.2022 20.02.2023 to 24.02.2023 27.03.2023 to 31.03.2023
119	Live Line Insulator Washing Techniques on Ehv Switchyard/Lines at Onside	04 Days	Dates will be finalised on the request of utility
	V. Control and Instrumentation Engi	neering	
120	Power Plant Instrumentation	03 Days	3/14/2023
121	Control & Instrumentation (C&I) in Power Station (For Operation Engineers)	03 Days	Mutually agreed basis
122	Control & Instrumentation in Power Station	01 Week	Mutually agreed basis
123	Data Acquisition & Distributed Digital Control System in Thermal Power Station	03 Days	2/8/2023
124	Power Plant Auto Control	03 Days	Mutually agreed basis
125	Power System Communication SCADA & EMS	03 Days	Mutually agreed basis
126	Intelligent Load Management System	02 Days	Mutually agreed basis
127	Vibration Diagnostics and Fault Analysis	03 Days	Mutually agreed basis
128	PLC & SCADA in Thermal Power Plant	02 Days	Mutually agreed basis
129	Burner Management System/ Fsss	03 Days	Mutually agreed basis
	VI. Disaster and Safety Manager	nent	
130	Fire Prevention, Protection & Safety	03 Days	Mutually agreed basis
131	Disaster Management, Electrical Safety Procedures and Accident Prevention	03 Days	Mutually agreed basis
132	Electrical Safety and Inspection of Electrical Installations, Accident, Prevention Recent Trends	03 Days	Mutually agreed basis
		01 Week	Mutually agreed basis
133	Safety in Power Station	02 Days	Mutually agreed basis Mutually agreed
134	Operational Safety	02 Days	basis Mutually agreed basis

135	Electrical & Fire safety for Distribution Utilities	03 Days	Mutually agreed basis
136	Measures Relating to Safety and Electrical Supply		Mutually agreed basis
137	Industrial Safety	02 Days	Mutually agreed basis
138	Industrial Plant Safety	03 Days	Mutually agreed basis
139	Electrical Safety in Power Utilities On-line Workshop	02 Days	Mutually agreed basis
v	ii. Grid Integration, Smart Grid & Smart Cities, EV an	d Energy St	orage System
140	Renewable Energy & Grid Integration Technologies	03 Days	Mutually agreed basis
141	spv power plant - integration with grid and storage batteries	03 Days	Mutually agreed basis
142	Smart Grids and Renewable Energy Integration	01 Day	Mutually agreed basis
143	Role of Smart Grids on the Indian Power Sector: Current Developments, Challenges and way Forward	02 Days	Mutually agreed basis
144	Development of Microgrid (Mg) and Macrogrid (mcg) in India	03 Days	Mutually agreed basis
145	Smart Grid and Smart Metering Technologies and	03 Days	1/9/2023
	Applications	03 Days	Mutually agreed basis
146	Smart Grid for Utility Engineers	02 Days	Mutually agreed basis
147	Smart Power Flow Controller for Smarter Grid Applications	01 Day	Mutually agreed basis
148	Smart Grids for Smart Cities	03 Days	Mutually agreed basis
149	Battery Maintenance	03 Days	Mutually agreed basis
150	E-Mobility Mission of India: Concepts & Implications	02 Days	Mutually agreed basis
151	E-Mobility & Charging Infrastructure	03 Days	Mutually agreed basis
152	E-Mobility- Concept & Implication	02 Days	Mutually agreed basis
153	Battery Energy Storage & Micro Grids in India	02 Days	Mutually agreed basis
154	Renewable Energy and Grid Interface Technology & Regulatory Framework	02 Days	Mutually agreed basis
155	Grid Integration of Hybrid Generation: Review of existing Sub-Station Controls required for upcoming RE Mix in Switchyard and handling Intermittency with Grid	03 Days	Mutually agreed basis
	and Energy Storage options		

	VIII. IT, ICT, GIS & RS, Big Data Analytics and	I Cyber Secu	ırity
157	IT General for Utility Engineers	01 Day	Mutually agreed basis
158	Cyber Security in Power Sector	01 Day	Mutually agreed basis
		03 Days	Mutually agreed basis
159	Smart Grid Technologies, Internet of Things and Cyber Security	02 Days	Mutually agreed basis
160	Block Chain Technology.	02 Days	Mutually agreed basis
161	Internet of Things for Smart Grid Applications.	02 Days	Mutually agreed basis
162	GIS and Remote Sensing Application in Hydropower Project	03 Days	Mutually agreed basis
163	Internet of Things for Robotics: On-Line Webinar	05 Days	Mutually agreed basis
164	Data Science & Big Data Analysis with industrial orientation (Energy & Utility)	03 Days	Mutually agreed basis
165	Cyber Security Issues in Smart Grid System – Online - Webinar	02 Days	Mutually agreed basis
166	Internet of Things for Smart Grid – Online - Workshop	02 Days	Mutually agreed basis
167	Data Sciences & Big Data Analytics	03 Days	Mutually agreed basis
	IX. Energy Efficiency, Energy Audit and Demand	Side Manag	gement
168	Energy Efficiency Management in Power System	03 Days	Mutually agreed basis
169	Energy Audit and Loss Reduction in T&D Systems	02 Days	Mutually agreed basis
170	Energy Efficiency in Electrical Utilities	03 Days	Mutually agreed basis
171	Energy Conservation and Energy Audit (For Generation Sector)	03 Days	11/16/2022
172	Energy Audit & Demand Side Management in Power Utilities	03 Days	Mutually agreed basis
173	Big Data Analytics & Data Science Training covering descriptive, prescriptive & predictive analytics hands-on case studies with Industrial orientation (Energy & Utility)	01 Week	Mutually agreed basis
174	Energy Conservation and Energy Audit in Power Utilities	05 Days	Mutually agreed basis
175	Accelerating EnergyEfficiency in India: Initiatives & Opportunities	02 Days	Mutually agreed basis
176	Efficient Energy Management	01 Day	Mutually agreed basis
	X. Power Management and Management Develo	opment Prog	jrams
177	Regulatory Framework in Power Sector	02 Days	12/1/2022
178	Open Access, Power Trading and Tariffs - abt Scenario	03 Days	Mutually agreed basis

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179	Management of Renewable Energy (Solar Energy in Particular); Finance and Economics of Renewable Energy	02 Weeks	Mutually agreed basis
180	Finance for Non-Finance Executives02 Days1/5/20		1/5/2023
181	Contract Management	02 Days	Mutually agreed basis
182	Behavioral Science	02 Days	Mutually agreed basis
183	Maintenance Planning & Cost Control	03 Days	Mutually agreed basis
184	Electricity Act and Regulation	03 Days	Mutually agreed basis
185	Government e-Marketplace (GeM) and General Financial Rules (GFR) 2017	01 Week	Mutually agreed basis
186	Government e-Marketplace (GeM) for Sellers & Service Providers	02 Days	Mutually agreed basis
187	Procurement Procedures & Contracting	03 Days	Mutually agreed basis
188	Regulatory Issues in Power Sector	05 Days	Mutually agreed basis
189	Leadership Skills and Stress Management	02 Days	Mutually agreed basis
190	Human Resource Development Program for Finance Officer/ Manager	01 Week	Mutually agreed basis
	XI. ENVIRONMENTAL MANAGEM	ENT	
191	Environmental Issues in Thermal Power Stations and Fgd Technology	02 Days	Mutually agreed basis
192	Environmental Pollution & Pollution Control Related to Power Plants Engineering	01 Week	Mutually agreed basis
193	Air Pollution Monitoring & Control Technologies	02 Days	Mutually agreed basis
194	Environmental Impact Assessment and Environment Management Plan	03 Days	3/9/2023
XII. (	OTHER TRAINING PROGRAMS AS PER THE REQUIRE AGREED BASIS	MENT OF CL	IENT MUTUALLY
195	Maintenance & Protection of Transformers	02 Days	Mutually agreed basis
196	Emergency Operation of TPS and Power Plant Safety	02 Days	Mutually agreed basis
197	Zero Accident Mindset to Protect Personnel Environment and Equipment	02 Days	Mutually agreed basis
198	Potential Hazards in Power Plant	02 Days	Mutually agreed basis
199	Safe Handling Procedures in Mechanical/Electrical (Rotary and Static)	02 Days	Mutually agreed basis
200	Fire Hazards in Power Plant	02 Days	Mutually agreed basis



On-Line Inauguration of 5-week Training on LLMT using BHM 02.12.21 at HLTC, Bengaluru



PGDC Hydro Batch (2021-22) welcome Director at NPTI Nangal

### **Medium Term Courses**

S. No.	Name of Course	Duration	Date of Commencement
1	3 Months Course on "Design, Erection and Commissioning of Solar Power Plants"3 Months		Mutually agreed basis
2	3 Months Course on 'Distribution Substation Management & Optimal Utilization of Components'	3 Months	Mutually agreed basis
3	Live Line Maintenance Techniques (Llmt), Using Hot Stick Method (Hsm)	11 Weeks	(1)18.4.2022 to 01.07.2022 (2)08.08.022 to 21.10.2022 (3)05.12.2022 to 17.2.2023
4	Live Line Maintenance Techniques (Llmt) using Bare Hand Method (Bhm) on 400kvLines	05 Weeks	31.10.2022 to 02.12.2022
5	Post Graduate Certificate Course (PGCC) in Power Plant Engineering	3 Months	Mutually agreed basis
6	Post Graduate Certificate Course in E-Mobility and Smart Utilities	4 Months	Mutually agreed basis
7	Certificate Course for Hydro Power Plant Engineers and Supervisors	12 Weeks	Mutually agreed basis
8	Specialized Training on O&M of Hydro Power Plant	12 Weeks	Mutually agreed basis
		06 Weeks	Mutually agreed basis
9	Distribution Engineering	06 Weeks	12/5/2022
10	Control & Instrumentation for Supervisors / Technicians	06 Weeks	2/13/2023
11	Training Programfor Supervisor/Managerial Person Deployed in Power Industry	06 Weeks	1/30/2023
12	New and Renewable Sources and Grid Integration in	06 Weeks	3/13/2023
	India	1.5 Months	Mutually agreed basis
13	Executive Development Program for the Supervisory Staff Working in Finance & Accounts Department	1.5 Months	Mutually agreed basis
14	3 Month Skill Development Program on "Thermal Power Plant Operation"	12 Weeks	Mutually agreed basis
15	MNRE Sponsored Solar PV Installer "Suryamitra" for Diploma/ITI Holder	12 Weeks	Mutually agreed basis

## Long Term Course

S. No.	Name of Course	Institute	Duration	Date of Commencement
1	Post Graduate Diploma Course (Pgdc) in Power Plant Engineering	Faridabad, Badarpur, Nangal, Neyveli, Durgapur, Guwahati, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	28/08/2022 & 27/02/2023
2	Post Graduate Diploma Course (PGDC) in Renewable Energy and Grid Interface Technologies	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
3	Post Graduate Diploma Course (PGDC) in Smart Grid Technologies	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
4	Post Graduate Diploma Course (PGDC) in Energy Market Management	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
5	Post Graduate Diploma Course (PGDC) in Power System Operation	Faridabad, Durgapur, Nagpur, PSTI, Bengaluru, Alappuzha, Shivpuri	52 Weeks	Mutually agreed basis
6	Post Graduate Diploma Course (Pgdc) in Hydro Power Plant Engineering	Nangal	39 Weeks	Mutually agreed basis
	<b>.</b> .	Badarpur	26 Weeks	Mutually agreed basis
7	Post Graduate Diploma Course (Pgdc) in Transmission &	Durgapur	26 Weeks	Mutually agreed basis
	Distribution System	Nagpur	26 Weeks	8/29/2022
		PSTI, Bangalore	26 Weeks	Mutually agreed basis
		Shivpuri	26 Weeks	Mutually agreed basis
		Alappuzha	26 Weeks	Mutually agreed basis
		Nagpur	52 Weeks	28/08/2022 & 27/02/2023
8	Post Diploma Course (Pdc) in Power Plant Engineering	Guwahati	52 Weeks	Mutually agreed basis
		Durgapur	52 Weeks	Mutually agreed basis
		Badarpur	52 Weeks	Mutually agreed basis
		Shivpuri	52 Weeks	Mutually agreed basis

9	Post Diploma Course (PDC) in Hydro Power Plant Engineering	Nangal	26 Weeks	Mutually agreed basis
10	5	Durgapur	52 Weeks	Mutually agreed basis
	(Power Plant Engineering)	Nagpur	52 Weeks	28/08/2022 & 27/02/2023
11	Graduate Engineers Course (Thermal Condensed)	Nagpur	26 Weeks	Mutually agreed basis
12	Post Diploma Course in Renewable Energy including Solar Technology	Nagpur	26 Weeks	28/08/2022 & 27/02/2023



Simulator Training for Junior Engineer Trainees (JETs) of MPPGCL from 27<sup>th</sup> Sept 2021 to 8<sup>th</sup> Oct 2021 by NPTI Nagpur



Dr. Tripta Thakur, Director General, NPTI inaugurated the 2-week Combined Cycle Gas Turbine (CCGT) Simulator Training Program for NTPC Batch-III from 27.09.2021 to 08.10.2021 at NPTI CO Faridabad.

## Simulator Training Course

S. No.	Name of Course	Duration	Date of Commencement
1	210 MW Fossil Fuel Power Plant	02 Weeks	Mutually agreed basis
2	500 MW Fossil Fuel Power Plant	02 Weeks	Mutually agreed basis
3	430 MW Combined Cycle Gas Turbine	02 Weeks	Mutually agreed basis
	Power Plant		Mutually agreed basis
4	250 MW Hydro Simulator Training	01 Week	Mutually agreed basis
5	Dispatcher Training Simulator (DTS)	02 Weeks	Mutually agreed basis
6	800 MW/660 MW (Emulated) Super	02 Weeks	Mutually agreed basis
	Critical Thermal Power Plant Simulator Training		Mutually agreed basis
7	Multifunctional Simulator Configurations		
i	210 MW-Thermal Power Plant	02 Weeks	18-04-2022 & 09/05/2022 & 06/06/2022 & 18/07/2022 & 22/08/2022 & 12/09/2022 & 10/10/2022 & 21/11/2022 & 19/12/2022 & 09/01/2023 & 13/02/2023 & 13/03/2023
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis
ii	250 MW-Hydro Power Plant	01 Week	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
iii	500 MW-Thermal Power Plant	02 Weeks	18-04-2022 & 09/05/2022 & 06/06/2022 & 18/07/2022 & 22/08/2022 & 12/09/2022 & 10/10/2022 & 21/11/2022 & 19/12/2022 & 09/01/2023 & 13/02/2023 & 13/03/2023
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis
iv	550 MW-Combined Cycle Power Plant	02 Weeks	Mutually agreed basis
V	800 MW/660 MW (Emulated) Super Critical Thermal Power Plant Simulator Training	02 Weeks	18-04-2022 & 09/05/2022 & 06/06/2022 & 18/07/2022 & 22/08/2022 & 12/09/2022 & 10/10/2022 & 21/11/2022 & 19/12/2022 & 09/01/2023 & 13/02/2023 &

			13/03/2023
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		02 Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis
vi	SCADA & Smart Grid Simulator	01 Week	Mutually agreed basis
		02Weeks	Mutually agreed basis
		01 Week	Mutually agreed basis



Inaguration of Intership program on Power System Protection on 15 Nov 2021 at PSTI Bengaluru



250 MW Hydro Simulator Training for SJVNL Batch at NPTI Nangal

### **NPTI Publications**

To dissipate the knowledge among the technical domain, NPTI publishes huge number of books, manuals, notes etc. These resource materials are prepared by domain experts and are meant to give in depth exposure and knowledge to the readers in related fields.

S.No.	Title	Price(Rs.)	Price (US\$)
A)	THERMAL POWER PLANT		
1	Thermal Power Plant Familirisation (Vol.I)	400	20
2	Thermal Power Plant Familirisation (Vol.II)	600	30
3	Thermal Power Plant Familirisation (Vol.III)	425	21
4	Thermal Power Plant Familirisation (Vol.IV)	400	20
5	Thermal Power Plant Operation	600	30
6	Thermal Power Plant Metallurgy	175	09
7	Ash Handling	250	13
8	Fuel Handling System Operation (Hindi)	250	13
9	Schematic Diagram (210 MW Thermal)	350	18
10	Fuel Handling System Operation	250	13
11	Environmental Management in Power Sector	600	30
12	Thermal Power Plant Performance and Efficiency Monitoring	425	21
13	Thermal Power Plant Chemistry	350	18
14	500 MW Fossil Fuel Power Plant Simulator Operating Procedures	550	28
15	Atomspheric F B C Boilers	250	13
16	Boiler Feed Pump Design, Construction & Operation	250	13
17	Circulating F B C Technology	250	13
18	Power Station Safety	350	18
19	Safety in Power Station (Hindi)	200	10
20	210 MW Thermal Schematic Diagrams	200	10
	(Combustion Engineering Boiler & KWU Turbine)		
21	HP - LP Bypass System	350	18
22	Pulverisers and Feeders	200	10
23	Pulverised Fuel Fired Boilers	350	18
24	KWU Steam Turbine Governing and Protection System	425	21
25	210 MW Turbo Generator Operation and Stability	200	10
26	Lubrication Systems for Power Station	300	15
27	210 MW Simulator Training	550	28
28	Steam Turbines for Power Generation	650	33
29	Vibration	200	10
B)	HYDRO POWER PLANT		
30	Hydro Power Plant Familiarisation	400	20
31	Hydro Power 2000: An Indian Perspective	1000	50
32	Silting Problems in Hydro Power Plants & Their Possible Solutions	495	25
33	Up rating and Refurbishment of Hydro Power Plants	495	25
34	Hydro Environment Interface	950	48

35	Small Hydro	595	30
	COMBINED CYCLE GAS TURBINE POWER PLANT	000	
<b>C)</b>		100	
36	Gas Turbine and Combined Cycle Power Plant	400	20
D)	CONTROLS AND INSTRUMENTATION		
37	Control & Instrumentation (Vol. I)	600	30
38	Control & Instrumentation (Vol. II)	425	21
39	Control & Instrumentation (Vol. III)	350	18
40	Data Acquisition System & Distributed Digital Control	250	13
41	Condition Monitoring of Power Transformers	250	13
42	Programable Logic Controller & Fuzzy Logic Controller	250	13
	and their Applications in Instrumentation		_
43	Control Valves Selection and Sizing	300	15
44	Programable Logic Controls	50	18
E)	REGULATORY ISSUES		
45	Journal on ERC Orders-2nd Edition	595	30
F)	MAINTENANCE MANUALS		
46	Motor Maintenance	200	10
47	Battery Maintenance	250	13
48	Battery Maintenance (Hindi)	250	13
49	Valve Maintenance	350	18
50	Pump Maintenance	400	20
51	Pump Anurakshan (Hindi)	350	18
52	Relay Maintenance	200	10
53	Maintenance Planning & Cost Control	250	13
54	Maintenance of Power Transformers	350	18
<b>G</b> )	POWER PLANT AUXILIARIES		
55	Fans & Heaters	425	21
56	Fan & Heater (Hindi)	425	21
57	Compressor & Compressed Air	200	10
58	Valves	400	20
59	Power Station Pumps	350	18
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61	Power System Studies and Load Despatch	350	18
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68	O&M of EHV Sub-Stations Vol. I	250	13
69	O&M of EHV Sub-Stations Vol. II	200	10
J)	RENEWABLE ENERGY SOURCES		
70	Renewable Energy	595	30
71	Non-Conventional Power Plants	350	18
K)	ENERGY AUDIT MANUAL		
72	Manual on Energy Conversation and Management	250	13

73	Energy Audit and DSM in Power Utilities	400	20
L)	OTHER MANUALS		
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77	Environmental Pollution & Pollution Control	250	13
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79	Overview of Indian Power Sector-Organizational Setup	180	09
80	Inventory and Store Management	130	07
81	Selected Readings on General Management	240	12
82	Selected Readings on Communication in Power Sector	270	14
83	Selected Readings on "Power System Communication"	110	06
84	Procurement Procedures & Contracting	500	25
85	Overview of Indian Power Sector - Regulatory Framework	350	18
86	Boiler Tube Failure Analysis and Prevention	160	08
87	Power Distribution Franchisee	360	18
88	CSR and Hydro Sector	230	12
89	Rehabilitation and Resettlement "Challenges in Hydro Sector"	260	13
90	Distribution Franchisee Business : A Case Study of Nagpur	400	20
91	Management of Transmission System	620	32
92	Hydro Power Plant Familiarisation (Chetram Meena)	500	25
93	Fundamentals of O& M of Hydro Power Plant (Vol. I)	190	10
94	Fundamentals of O& M of Hydro Power Plant (Vol.II)	300	15
95	Fundamentals of O& M of Hydro Power Plant (Vol. III)	260	13
96	Fundamentals of O& M of Hydro Power Plant (Vol. IV)	160	08
97	Fundamentals of O& M of Hydro Power Plant (Vol. V)	270	14
98	EHV Power Transformers : Reliability Issues	150	08
99	Energy Audit and Energy Conservation Techniques for Thermal Power Stations	530	27

- 1. Packing and forwarding charges Rs.50/- per book payable extra.
- 2. Special Offer: All books carry 10% discount for all and 30% discount for students.
- 3. The payment may be made through Demand Draft in favour of "National Power Training Institute" payable at Faridabad.



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In order to enable distance mode of learning, NPTI has prepared a huge collection of CBT's, which consist of expert lectures/tutorials/demos which cover huge gamut of topics related to power sector and other allied sectors. These are very useful as a self learning tool for fresh and practicing engineers.

S.No.	Name of the Multimedia CBT Package	Price of 1st copy (Rs.)	Price of 2nd 3rd & 4 <sup>th</sup> (Rs.)	All other copies (Rs.)
COAL	THERMAL		Γ	
A)	BOILERS			
1.	Combustion System in Boilers	40,000/-	25,000/-	15,000/-
2.	Boiler Drum and Drum Internals	-do-	-do-	-do-
3.	Super Heater, Re-heater and De- Super Heater	-do-	-do-	-do-
4.	Air Heater	-do-	-do-	-do-
5.	Fuel Handling System, Feed Heating System & Exhaust System	25,000/-	15,000/-	12,000/-
6.	CFB Boiler	25,000/-	15,000/-	12,000/-
B)	TURBINES			
7.	Water/Steam cycle of a Thermal Power Plant	25,000/-	15,000/-	12,000/-
8.	Steam Turbine Construction	40,000/-	25,000/-	15,000/-
9.	Turbine Governing System (KWU)	-do-	-do-	-do-
10.	Regenerative Feed Heating System	-do-	-do-	-do-
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13.	Turbine Lubricating Oil System	15,000/-	10,000/-	8,000/-
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17.	Generator Excitation System	-do-	-do-	-do-
18.	Generator Seal Oil System	-do-	-do-	-do-
19.	Generator Cooling System	-do-	-do-	-do-
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23.	Electrostatic Precipitators	40,000/-	25,000/-	15,000/-
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25.	Compressed Air, Water Treatment & Fire Prevention Systems	25,000/-	15,000/-	12,000/-
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30.	Valve Maintenance	15,000/-	10,000/-	8,000/-
	/ GAS THERMAL		- )	- ,
31.	Combined Cycle Gas Turbine (CCGT) Plant	25,000/-	15,000/-	12,000/-
32.	Gas Turbine	40,000/-	25,000/-	15,000/-
33.	Control System of CCGT Plant	25,000/-	15,000/-	12,000/-
34.	Water Treatment of CCGT	25,000/-	15,000/-	12,000/-
HYDR		_0,000;	,	,
35.	Hydro Generator Construction	25,000/-	15,000/-	12,000/-
36.	Silting Problems in Hydro Power Plants	40,000/-	25,000/-	15,000/-
37.	Hydro Turbine	25,000/-	15,000/-	12,000/-
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40.	R & M for Hydro Power Station	10,000/-	8,000/-	6,000/-
T & D				
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Inauguration of NPTI Training Program for Capacity Building of DISCOMs (DHBVN, UHBVN) under RDSS by Shri Alok Kumar, Hon'ble Secretary Power, Govt. of India in the august presence of Shri Vishal Kapoor, JS, Distribution, MOP, Gol, R.S Dhillon, CMD, PFC, Shri Saurav Kumar Shah, ED, PFC and Dr. Tripta Thakur, DG, NPTI at NPTI Faridabad on 20.12.2021.



NPTI Conducted One week Refresher Training Program on Renewable Energy and Emerging Technology for Executive Trainees of SJVNL Limited at NPTI Faridabad

